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THE HISTORY  
BROKEN HILL

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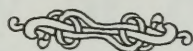
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# THE HISTORY OF BROKEN HILL

Its Rise and Progress.



COMPILED AND EDITED BY

Leonard Samuel Curtis,

AUTHOR OF

"Adelaide: The Queen City of the South."

"The River Murray and the Fruit Growing Industry,"  
&c., &c.

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ADELAIDE:


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1908.



## AUTHOR'S PREFACE.

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HE Author, in this volume, has sought to present in a lucid way the past history and present position of the District of Broken Hill—one of the most romantic and famous mining centres of the world.

The magnificent mineral resources, the elaborate provisions, the adaptation and expansion of the various processes, and the proficient and flourishing state of the great mining industry, have received due attention; the municipal, commercial and social activities, with incidental organisations and institutions stand out plainly; many old identities are re-introduced, and prominent citizens find an honored position side by side with those good old veterans of Barrier pioneering triumphs.

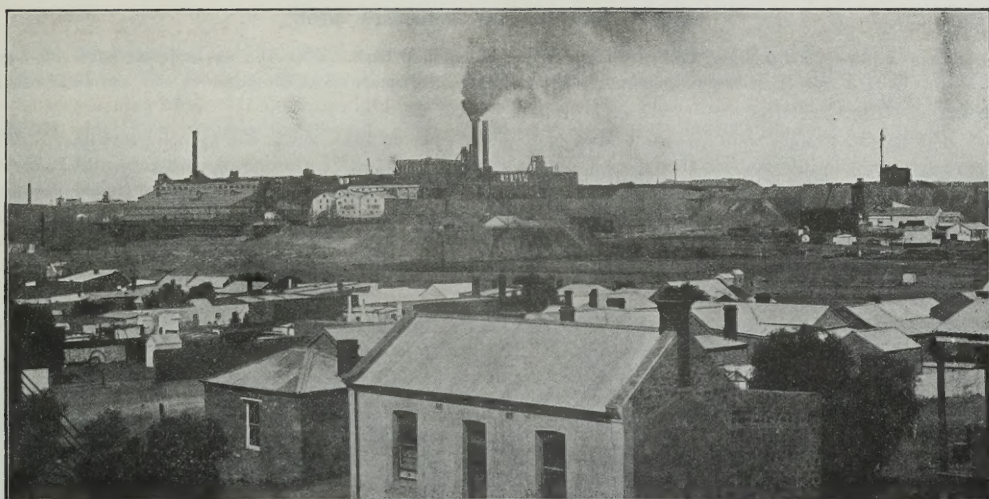
Historical facts have been garnered with the utmost care, and the illustrations, from plates specially taken or obtained, serve to impress one concerning the peculiar characteristics and remarkable advancement of the district.

The general effect of this Book will be, it is hoped, to emphasize more vividly the achievements, the amazing resources, and actual position of this "Silver and future Leaden-Zinc City," planted in the far interior of the Great Australian Continent.

JANUARY, 1908.



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The Broken Hill Proprietary Company's Mine, 1907.

# The History of Broken Hill:

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## ITS RISE AND PROGRESS.

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"Eventide,"  
Stephen's Creek  
Reservoir.

**I**T was a cold, dark, bleak night early in July, when the writer wended his way to the top of Reservoir Hill, and was introduced to the Great Silver-Leaden City, the future capabilities of which are still unknown. All around, the slumbering township lay at my feet, while in the background the Mines, brilliantly lit up with electric light, formed one of the grandest panoramic views it is possible to witness—but difficult to describe.

Stretching out for miles on either side, these monsters stood plainly silhouetted against the black sky, the very semblance of a group of battleships, with that leviathan, the "**Big Mine**," prominent in the centre.

One could have imagined that the British squadron had suddenly appeared on the scene, and were preparing for immediate action; the continuous rumbling, crushing, gurgling sound—the shrill whistle—the blowing off steam—the constant motion—the deafening noise—all seemed to indicate that mysterious preparations were going on below.

From stem to stern, from every port, and high above on the funnels and masts, the glittering lights were shining. On the right stood the sister ships, "**The South**," "**Block 10**," and "**The Central**," somewhat hidden to view, with only a high light or two visible; while on the left, anchored side by side, were "**Block 14**," "**The British**," "**The Junction**," "**The Junction North**," and far away in the distance "**The North**."

Let him who has never witnessed this sight or noticed the marvellous resemblance depicted, ascend the Hill any night, and he will be amply repaid by the splendid panoramic view which stretches out on either side, all brilliantly lit up with thousands of lights, forming a perfect picture for the artist's brush.



It is of these "**Ships,**" and their actions—the progress they have made—the course they have run—and the speed attained—that this book is written, but it is first needful to secure from the relics of the past their origin and discovery.

The Barrier Ranges were first discovered by Explorer Sturt in 1844, but it was not till years later (1876) that we have any authentic information, then silver-lead ore was discovered at Thackaringa by a man named Paddy Green, with the result that miners came from all parts, trudging their weary limbs over the dried-up, scorched, barren country, enduring all sorts of privations, to try their luck, but no claim seems to have been worked properly till 1880, when fresh energy, new blood, and new life were infused into the miners' camps; then fresh shafts were sunk, and the lode proved so rich in quality that a rush was made for the field early in 1882, and Thackaringa jumped into a little township of some 200 to 300 people.

This is the opening chapter to the history of the mining on the Barrier Ranges, which has proved to be one of the most important mining fields in the world.

A year later (1883) the town of Silverton was surveyed, and another rush set in. Hotels, houses, stores, &c., were erected with lightning rapidity.

**Silverton** (originally known as Umerumberka) was officially recognised on September 17, 1880, by the Government, when Richard O'Connell was sent in charge of the police, and was also Acting Clerk of Petty Sessions, Mining Registrar, Warden's Clerk, &c. The first influx of people took place in 1883, and in September of that year there was a population of about 250. In 1884 the population, according to a census taken, numbered 1,745 people, and from that period, when it had become known that silver lodes of phenomenal richness existed in the district, people swarmed in, and soon exceeded 3,000. This was about the maximum population, and as the excitement over the silver finds ran high, Silverton witnessed busy and stirring times. Numerous companies were floated—many of them "wild-cat" schemes—without a shadow of reason, but simply on spurious assays obtained from self-constituted "experts." A prospector would re-peg some old disbandoned claim, and await his chance to meet the men who constantly arrived from Adelaide, who were ready to buy up or float anything "good." The increase in the population was considerably ahead of any provision made for its reception; those who possessed tents were envied mortals, and for many a night a bed on a billiard table was considered a luxury. Many is the man of affluence to-day who was only too glad to dump on the floor with a "bluey," or camp alongside the creek with the great unknown.

Food of every species advanced in price; bread was 2s. per 4lb. loaf, meat 7d. per lb., while vegetables could not be had for love or money. Water cost 6d. per bucket, and inferior stuff at that; a purer quality, alleged to be brought from Mingary, in South Australia, 45 miles distant, was retailed at 1s. per bucket. The Umerumberka Creek came down a banker in 1884, after which a regular supply was obtainable. Stores were supplied from Adelaide, via Terowie, the journey from the latter place occupying 21 days, and the rate £7 per ton.

The following description of the principal mines on the field at this time will prove interesting reading:—

**The Umerumberka Mine** is about two miles from Silverton, and since the mine was opened in November, 1882, over 500 tons of ore have been raised, which realised in England about £7,000. The mine is owned by an Adelaide company, with a nominal capital of £20,000, of which less than £3,000 is subscribed.

**The Day Dream**, situated about 14 miles west of Broken Hill, was an important mine at this time (1884), with some 400 to 500 people on the field. The mine raised 96,000 tons of ore before it floated into a company, afterwards declaring four dividends of 1/6 each. The first production from the Broken Hill mine, some 1,500 tons, was smelted here, as the Big Mine had not then started their own furnaces. Over this district it may generally be said that the lodes near the surface are of phenomenal richness, but their value at a comparatively moderate depth has yet to be proved. In the Day Dream the lode ran from two to four feet thick, and was very rich in quality. Teams left regularly with the ore for Terowie, the price paid being £4 10s. per ton. The company carried on operations for four years before the mine was closed down and the machinery dismantled, the coke being sold to the Proprietary Company at Broken Hill.

**Purnamoota** (the original name being "The Soakage") lies about 20 miles north of Broken Hill, and was famous in the pioneer days on account of the numerous slugs of almost pure silver found on the surface. This led to many claims being taken up, amongst others the Lubra, the Treasure (Morris' Blow), and the Pluck Up. The Lubra was spoken of at this time (1884) as one of the best mines on the field, and the Treasure was famed for an extraordinary find of what looked like black ironstone, about four feet in diameter, but which was really a mass of the richest ore ever seen. In December, 1884, a branch of the Commercial Bank of Sydney was opened, and a school and post office established.



**The Pinnacles** is a mining centre situated about 10 miles south-west of Broken Hill, with a population of about 400 to 500. The township takes its name from three remarkable cones or pinnacles that stand conspicuously above the surrounding hills. It first came into prominence early in 1885, when Messrs. Maiden and Pretty discovered the property which now comprises the Pinnacle group of silver mines, then the premier mines of the district.

**The Pilgrim Mine** (1884). It is in this and an adjacent claim a third was recently sold for £4,000 to a Wilcannia syndicate. A parcel of ore from this mine, treated at the Melbourne Mint, weighing 70 lbs., gave a return equal to 8,000 oz.



The Umberumberka Mine, 1883.

**The Coat Hill.** Three shares in this claim changed hands at £1,000 each.

**The Manola.** From this mine lumps of pure chloride weighing several ounces have been obtained. The lode is about 10 inches thick, and the mine looks perhaps the best on the field.

**The Orion.** This is the claim from which the slug was obtained that is now being shown in Melbourne (1884). It is a solid block weighing 258 lbs., and a splendid specimen of ore.

From the Apollyon some exceedingly rich ore has been extracted, while from the One Tree Hill Mine the ore sent home realised £932 per ton for firsts.

On August 22, 1884, the Barrier Ranges Silver Mining Association met in Melbourne, and spoke hopefully of the prospects, and stated that the Company had purchased 32 claims from the North Mining Co. for £35,000.

We read from the "Silver Age," which made its first issue on Saturday, August 30, 1884, at Silverton, that there will be a bi-weekly mail between Adelaide and Silverton after the 2nd of September of that year.

Owing to the absence of ministers of religion, public worship has been very irregularly held at Silverton; but, during the past three weeks, Mr. James Port (who is in connection with the Stowe Congregational Church, Adelaide) has held Sunday evening services at De Baun's Hotel, which have been well attended.



Thackaringa Claims, 1883.

Up to Monday night, August 26, 1884, 1,136 mineral licenses were granted in the local office, and 836 business licenses; also 562 applications were received for mining leases, averaging 40 acres each.



The Bank of Australasia, Silvertown.

Opened Dec. 16, 1885. Cost about £1,500.  
Sold to Mr. W. C. Davies in 1904 for £50.

Silvertown at this time (1884) was the hub of the mining centre, for the discovery of silver-bearing ore had been extended over an area of some 30 miles north, south, east and west of that township, and many are the men who will remember such claims as:—

The Umberumberka, Apollyon, Day Dream, Hen and Chickens, Orion, Bobby Burns, One Tree Hill, Pilgrim, Gladstone, Manola, Clifton, Maybell, Evening Star, Green's Six Over Six, Gipsy Girl, Uno, Maggie's Secret, Outward Bound, Caledonian, Pinnacles, Christmas, Eleven Over Six, Hercules, Goat Hill, Lubra, War Dance, Terrible Dick, Hidden Secrets, Treasure, Model Republic, Black Prince, Silver King, Great Northern, Mount Role, and a great many more too numerous to mention.

The following interesting table approximately shows the particulars of the quantity and value of silver ore despatched from the Barrier silver field to the end of September, 1884.

Claim.	Owners.	No. of Tons.	Gross Value.
			£
Umberumberka .. .. .	Company .. .. .	560	9500
Eleven Over Six .. .. .	W. Sully .. .. .	15	225
Nil Desperandum .. .. .	H. F. Hanson .. .. .	10	150
Magrath's Claims .. .. .	Magrath & Co. .. .. .	150	1250
Kingston's Claims .. .. .	C. C. Kingston .. .. .	200	3000
Pinnacles .. .. .	Company .. .. .	6	90
Round Hill .. .. .	White & Foley .. .. .	6	90
Black Prince .. .. .	Company .. .. .	4	80
Hen and Chickens .. .. .	Barrier Ranges Silver Mining Co. .. .. .	60	6000
Day Dream .. .. .	Barrier Ranges Silver Mining Co. .. .. .	300	9000
Gipsy Girl .. .. .	Barrier Ranges Silver Mining Co. .. .. .	900	13,500
Apollyon .. .. .	Apollyon Silver Mining Co. .. .. .	300	10,000
Lubra .. .. .	Crisp Bros .. .. .	12	8000
Maybell .. .. .	Nickel & Wilson .. .. .	7	3500
Clifton .. .. .	Nickel, Brade & Wilson .. .. .	16	4500
Manola .. .. .	Horn, Hale & Dawson .. .. .	2	1500
Caledonian .. .. .	Mr. Isaac .. .. .	6	1500
One Tree Hill .. .. .	Nickel, Anderson & Fischer .. .. .	6	300
Christmas .. .. .	Hanson & Collins .. .. .	6	5000
Pluck Up .. .. .	Company .. .. .	8	600
Uno .. .. .	Glass & Mann .. .. .	4	1200
Silver Peak .. .. .	Garot & Stokie .. .. .	15	375
Hercules .. .. .	Company .. .. .	200	2400
Pioneer .. .. .	R. Green .. .. .	2000	30,000
Five Over Six .. .. .	R. Green .. .. .	30	450
Gout Hill .. .. .	Ellis & Lloyd .. .. .	250	3750
Maggie's Secret .. .. .	Edgar & Davidson .. .. .	30	450
Outward Bound .. .. .	Osborne & Co. .. .. .	12	180

Having now given an outlined description of the Barrier silver fields, sufficient to show the reader the activity displayed from the first find of silver ore at Thackaringa to the present (1884-1885), when Silvertown stood up in the stirrups of popularity, it is my intention to continue this history to the present year, and, in short paragraphs, give all the leading mining details, as well as other interesting matter, showing the rise and fall of Silvertown and the surrounding district—the start and gradual advancement of that “hill of mullock”—the particulars of the share market—and the formation of the Broken Hill city, as the result of the discovery of one of the greatest mines of the world, and to that end have taken extensive notes from the “Silver Age”—files of which, from its inception to defunction, have been kindly placed at my disposal.

While the mines around Silverton were going ahead, and excitement was at its height, when every man, no matter who or what he was, talked silver and silver only—towards the end of September, 1883—Charles Rasp, an employee on the Mount Gipps Run, while mustering sheep in the Broken Hill paddock, in the neighborhood of the since-formed township, Silverton, was much struck with the mineral appearance and formation of the “Broken Hill.” In conjunction with Messrs. Poole and James, contractors on the run, Rasp pegged off and applied for the first block (which is now lease No. 12) on the “Broken Hill.” Rasp mentioned the matter to Mr. George McCulloch, manager and part owner of Mount Gipps run, intimating that he believed the bluff at the end of the hill to be a mass of tin. McCulloch, with Rasp, then immediately pegged off blocks, which are now leases Nos. 13, 14, and 15, and which take in the whole of the Broken Hill itself, the original name of which is Wilyu-Wilyu-yong. These blocks were applied for in the names of George McCulloch, George Urquhart, and G. A. M. Lind, the two latter being respectively overseer and storekeeper on Mount Gipps run. Two more blocks (now leases 10 and 11) were applied for to the south of No. 12, and one block to the north of 15 (now lease 16), and thus seven blocks, being nearly two miles in length, were secured on the line of reef. The interest in the seven blocks was then amalgamated into one private company or syndicate, under the name of “The Broken Hill Mining Company,” the members of which were as follows:—

GEORGE McCULLOCH, Manager of Mount Gipps Station.

CHARLES RASP, Boundary Rider, Mount Gipps Station.

PHILIP CHARLEY, Boundary Rider, Mt. Gipps Station.

DAVID JAMES, Dam Sinker, Mount Gipps Station.

JAMES POOLE, Dam Sinker, Mount Gipps Station.

GEORGE URQUHART, Overseer, Mount Gipps Station.

G. A. M. LIND, Storekeeper, Mount Gipps Station.

Each of the above seven contributing the sum of £70 each.

After a little surface prospecting had been done, exposing large bodies of comparatively lower grade carbonate of lead ore—and not knowing, and not happening to have had tested, the richer iron and kaolin surface ores—Lind retired from the Company, Rasp and McCulloch taking up his interest in equal proportions. After about eight months' time, Urquhart also sold his interest out of the Company, and it was then found necessary to re-form the Company into one made up of fourteen shares of interest.

Soon after this Mr. W. R. Thomas (one of the old pioneers, and still living on the Barrier) tells us that Block 17 was pegged out by Otto Fischer, and was named by him the Cosmopolitan, afterwards becoming the property of the present Broken Hill North Company; followed by Mr. Maiden, of Menindie, leasing Blocks 5, 6, and 7 of the Broken Hill South, while Block 7 of the same Company was secured by Mr. White, and Block 9 pegged out by the late Mr. Thomas Nutt, which he named the Elizabeth, and which is the present Broken Hill Central. Shortly after this the Broken Hill Junction was leased by Messrs. Penglase and Carson.

Things, however, went on very slowly in Broken Hill. People had no faith in that “hill of mullock.” Some of the original owners of the Broken Hill Mining Company were getting tired of paying calls (about 10s. a week for a 14th) to pay for the sinking of the shaft, and would have gladly sold a 14th for £30 or £40, but there were no buyers, and they were forced to keep them, lucky men!



The Day Dream, 1886.



The highest assay that could be obtained gave only 16 oz. of silver per ton, but there was generally a good return for lead, yet only 20 miles away, over in the Purnamoota district, thousands upon thousands of ounces to the ton were being obtained. Even Mr. McCulloch was losing faith in the mine—it was nothing but a succession of calls without any results—but he was advised by Mr. Jamieson to “hang on,” which, fortunately for himself, he did.

The “Silver Age” of October 4, 1884, gives a most interesting and graphic description of the hill, as follows:—

“**The Broken Hill**” is so called from the rugged nature of its rocky summit. This hill is the highest point on a narrow ridge, which runs N.E. and S.W. for several miles, and forms a considerable feature in the district, rising for about 150 feet above the ground level of the undulating plain country on each side. The crest of the ridge is formed by the outcropping of a huge lode. The lode varies in width from 10 to 120 feet, and in places rises above the surface in large craggy black masses. It changes in character every few feet, and consists of ferruginous quartzite, quartz, guesen, felspar, porous brown iron ore or gossan, and oxide of manganese (pyrolusites), with patches and veins of crystallised lead (cerusite). The occasional black colour of the mass is due to the manganese oxide.

“Two shafts, one 52 feet deep, and the other 50 feet, and about 30 chains apart, have been sunk into the lode, as well as two smaller shafts between these. A little galena had been obtained in the stuff raised, and, as the cerusite had evidently crystallised from a solution of lead derived from the decomposition of galena, probably masses and veins of galena will be found disseminated through the lode.

“A sample of porous gossan from the near surface gave an assay at the rate of 3 oz. 5 dwt. of silver per ton, with a trace of lead, and two samples—one taken from a vein 18 inches thick of large crystals of cerusite, and another of a finely crystalline mass of cerusite from the north shaft on a different part of the lode—gave an assay respectively of 1 oz. 12½ dwt. of silver and 73.23 per cent. of lead, and 1 oz. 12½ dwt. of silver and 74.87 per cent. of lead.

“These results cannot be taken as indicative of the argentiferous nature of the lode, for the galena from which the cerusite has been derived may have been rich in silver, and yet the silver may not have entered into the solution from which the crystals of cerusite were formed, therefore, the richer silver ore will probably be found in association with the undecomposed sulphide of lead, silver, &c., or in the oxidised portions of the lode which originally contained the sulphides.

“Mr. Geo. McCulloch, of Mount Gipps Station, had results of assays of 26 various samples of the ore taken from different parts of the lode, which gave at the rate of from 4 oz. to 45 oz. of silver to the ton, and 10 to 70 per cent. of lead, or an average of 14 oz. 17 dwt. of silver to the ton, and 46 per cent. of lead.

“Further prospecting will probably prove this to be a valuable argentiferous lead lode. It appears to dip with the strata about N. 40 deg., W. at 50 deg., and on the N.W. side sends off several branches. About 10 chains from it there is a large dyke of diorite. It is remarkable that no gold has yet been found in the vicinity of these intrusions of diorite.”

The first advertisement for Broken Hill Mining Company appearing in the paper was as follows (October 4, 1884):—“Miners wanted, to contract for sinking 100 feet from the bottom of shaft at Broken Hill.—Apply at Poole and James’ Camp, Nine Mile Tanks, Mount Gipps Run.”

Towards the end of 1884, the existence of chlorides was first noticed on Rasp’s shaft. This gave an impetus to prospecting, and chlorides were shortly afterwards first found and noticed on the surface of the iron ore by Thomas Low, who at the time purchased, by private arrangement, one half of a fourteenth share. The rich surface kaolin ore was accidentally dropped across by “Harry,” an aboriginal in the employ of Mr. Jamieson (formerly a mining surveyor), who had taken the management of the property at a salary of £500 a year, Mr. Sleep being appointed mining manager, and Mr. Fawcett assayer.

An interesting and profitable hour can well be spent in the company of Mr. W. R. Thomas, who **knows** all the past, and can give information that perhaps very few else on the Barrier could. The following is from him:—

“Philip Charley, a boundary rider on Mount Gipps Station, who owned a fourteenth in the Hill, came over here to have a look how things were. In looking over the pile of ore he came across a little bit of chloride, and on making a closer search found several pieces of carbonate of lead showing chlorides. At this time we were camped on Stephen’s Creek, about three miles away from the Lubra, and, on the evening of the day that Charley found the chlorides, a friend of ours, who owned one 14th in the Hill, came galloping up to our camp in a state of great excitement. Throwing himself off his horse, he came into our tent and said: ‘Boys, I’m in at last. Just look at that!’ and he threw a piece of stone on the table. We did look at it, and simply remarked that we didn’t see anything out

of the way about it—only a bit of carbonate of lead. ‘Carbonate be hanged,’ he replied, ‘don’t you see that?’ and he pointed out a few specks of chlorides. How we all envied him then! ‘I guess you ought to be worth a thousand now, old man,’ one said. ‘A thousand, eh? Why, I wouldn’t sell out for twice as much. Who knows but that

I might get £5,000 for my shares in a year or two?’ It made us laugh to hear him talk so big; but how little we knew that in three years those shares had a market value of nearly one and a half million of money!’ Continuing, Mr. Thomas told me that when they were camped on the Willy-Willyung Creek, near the present site of the town of Round Hill, at that time the centre of population for miles around (for there was not a house of any kind then in Broken Hill), he remembers one evening a Mr. Thomas Low coming to the camp and saying he had found chlorides in several places on the surface of the hill. Of course this news made things pretty lively, and next morning two or three of us accompanied him to the Hill, and, sure enough, before long one of the party—Jamieson’s black



Mr. W. R. Wilson's House—then Manager of the Day Dream.

boy, ‘Harry’—found a slug full of chlorides. Then several other pieces were found. We drove into Silverton next morning with a buggy-load of specimens, and it was the sight of those specimens that first drove the Silverton people wild about Broken Hill. Before going into Silverton Low was smart enough to buy off Rasp a one 28th share for £1000.’ Again:—

“A Mr. Logan had a bit of hard luck. It appears that he found chlorides in Rasp’s shaft a few days before Philip Charley, and that he had written to Brisbane for money, so that he could buy in; but, as there were no telegraph wires or trains here then, it was several weeks before he got his money, and by then the cat was out of the bag. His partner, Mr. Downie, had £900 in the bank at Silverton, but he wouldn’t believe that Logan had found chlorides, so he, also, was out of it.”

On the 11th of November, 1884, the passing of the Silverton Railway Bill took place, and in the following month the permanent survey of the line from Petersburg to Silverton was commenced at the Petersburg end. The length of the track to be built was 149 miles, the width of the gauge 3 ft. 6 in., and the lowest tender, that of Messrs.

McGuire & Co., for £153,569, was accepted on May 11, 1885. This extension was a most important factor for the Silverton people, and, although they were thankful, they were not satisfied, for we find that on April 18, 1885, Mr. W. P. McGregor headed a deputation, composed of a number of gentlemen interested in the Barrier silver mines, who waited upon the Commissioner for Public Works to ask that the Silverton railway extension be carried on from the border to Silverton: but a letter received a few days later intimated that it was not the present intention of



The First Smelter on the Barrier Silver Field at the Day Dream.

the Government to extend the Petersburg railway beyond the border of the colony. They then appealed to the New South Wales Government, and received a like answer, so the people of Silverton quickly availed themselves of the opportunity of running it on their own, and issued the following prospectus on May 30, 1885:—

**PROSPECTUS**  
OF THE  
**SILVERTON TRAMWAY COMPANY.**

(To be Registered under the Companies' Act.)

**CAPITAL, 50,000.**

**In 50,000 shares of £1 each.**

Payable thus: 6d. per share on application; the balance as hereafter be determined upon, in calls not to exceed 1s. per share per month.

**PROVISIONAL DIRECTORS:**

W. P. McGregor, K. E. Brodribb, W. R. Wilson, John Penrose, J. S. Reid.

**SOLICITOR:** T. E. Johnson, Silverton.

**BANKERS:** Commercial Bank of South Australia, Silverton.

**BROKERS:** Chapple & Allen, Silverton.

The primary object of this Company will be to connect Silverton by rail with the South Australian border terminus, &c., &c.



Burke Street, Silverton, 1885.

At a meeting of the Broken Hill Mining Co.'s shareholders, held at Mount Gipps on Wednesday, March 18, 1885, the improved prospects of the Company's mining property was discussed. It was agreed that a drive west from the bottom of the straight shaft, to cut through the lode at 147 ft., should at once be commenced, and it is anticipated that the lode will be met with in 12 feet. It is stated that the shareholders received an open offer of £1,500 for a fourteenth, but met with no response.

Advices from London (received April, 1885) give the prices obtained for the first shipment of Maybell ores. The shipment was classified in four parcels, and comprised a quantity of ore from the Maybell and Maybell North. The net prices obtained in the open market are: Firsts, £1,496 per ton; seconds, £359 per ton; thirds, £86 per ton;

fourths, £81 10s. per ton. Therefore, Maybell Firsts top the list up to the present time as regards the prices yet quoted for Barrier ore, the highest price previously obtained being for Imperial firsts, which brought £1,008 per ton.

The demand for Broken Hill shares continues (April, 1885). Mr. W. R. Wilson concluded the purchase of a 14th for considerably over £2,000. The lode was touched in the crosscut at 150 ft., and in the first shot chlorides were exposed. Mr. William Jamieson, mining surveyor, has been appointed general manager to the Company. Two shares changed hands (May 16, 1885), a 28th being sold for £2,000, while a 14th fetched £4,500.

About this time Messrs. Jamieson and Keats bought the South Mine for £1,000 from Mr. Wm. Maiden, of Menindie, but not so very long afterwards it was floated into a company, in 100,000 £1 shares, 10s. paid up. Next came the Junction, which was floated in Melbourne, in 100,000 £1 shares, 15s. paid up.

The first smelters were those of the Day Dream, which started on June 24, 1885, followed by the Pinnacle smelters a few days later.

The prospect of the Broken Hill Company's property is improving daily, and it is becoming apparent that the true value of the mine is probably even beyond the wildest conjecture of the most sanguine of its owners. Rich chloride ore has been met with in the drives, and at 150 ft. level chlorides are visible for a distance of 15 ft. across the



lode. At present there are only about 25 workmen employed on the property. The writer has it on good authority that Mr. J. S. Reid, the proprietor of the "Silver Age," stated to a friend that before another 20 years there would be 10,000 men on the Hill—and his words have proved true. Evidently he had faith in that "hill of mullock."

**The Victoria Cross.**—It was on this claim that Morgan D'Arcy discovered the first surface chlorides found on Broken Hill (the Victoria Cross was bought by Messrs. S. Browne and Morgan D'Arcy for £500). It adjoins the Cosmopolitan on the north, and is therefore No. 2 from the Broken Hill Company's claims. As the lode is easily traced through the block, and the surface indications are precisely similar to the Broken Hill, this should prove a valuable property.

**Broken Hill Mining Co.**—Since the beginning of 1885 the prosperous advance of the Company has been most satisfactory, without check or hindrance, and perhaps unparalleled in this respect in the mining history of the colonies. Not the slightest hitch or dispute to occasion litigation of any kind has arisen to mar its progress, things moving smoothly, without failure, from success to further success. "The Broken Hill Mining Company" was floated into "The Broken Hill Proprietary Company, Limited" on the 12th August, 1885. The original fourteen holders appearing upon the first-named Company's agreement were:—Wm. Jamieson, W. C. Dalglish, K. E. Brodribb, Solomon Wiseman, Charles Rasp, E. Thomson, Bowes Kelly, W. R. Wilson, David James, James Poole, Philip Charley, A. W. Cox, and George McCulloch. Of the original holders of the first syndicate of seven, there are now only McCulloch, Charley, Rasp, and James who hold shares in present Company. Mr. McCulloch has continued his large interest in the Company, and has throughout been prominently identified with its marked success.

Copy of the **original** prospectus is given in full:—

**PROSPECTUS**  
of the  
**BROKEN HILL PROPRIETARY COMPANY, LIMITED.**

(To be Registered under the Companies' Act.)

**CAPITAL, £320,000.**

**In 16,000 shares of £20 each, to be issued as paid up to £19.**

2,000 shares are offered to the Public of Melbourne, Sydney, Adelaide and Silvertown, in equal proportions at £9 each, on the following terms, viz.:

On application (payable to Brokers) .. ..	£2 10 0
On allotment (payable to Brokers) .. ..	£6 10 0

When the payments as set forth are made and completed, the shares to be issued as to be paid up to £19, to rank in all respects with the remaining 14,000 shares held by the present owners, and the calling powers of the Company thereafter to be limited to £1 per share, for which the whole 16,000 shares are equally liable. Calls not to exceed 1s. per share per week.

**PROVISIONAL DIRECTORS:**

George McCulloch, Mount Gipps Station.	Bowes Kelly, Silvertown.
S. F. Hawkins, Mount Gipps Station.	Harvey Patterson, Melbourne.
K. E. Brodribb, Poolamacca Station.	W. R. Wilson, Silvertown.
William Jamieson, Silvertown.	J. W. Bakewell, Adelaide.

W. Austin Horn, Adelaide.

**BANKERS:** Commercial Bank of South Australia.

**SOLICITORS:** Moule & Seddon, Melbourne.

**BROKERS:**

C. J. Buckland, Sydney; Moore & McLeod, Melbourne; T. S. Horn, Adelaide;  
Chapple & Allen, Silvertown.

**SECRETARY** (pro tem): C. Chapple, Silvertown.

**The object for which it is proposed to form this Company** is to take over and work for silver, lead, and other minerals, or otherwise dispose of, mineral leases Nos. 46, 49, 50, 51, 52, 58, 59, 60, 865, 866 and 867, County of Yancowinna, Barrier Silver-field, New South Wales, now held by the Broken Hill Mining Company, and containing an area of 457 acres 1 rood. Leases 46, 49, 50, 51, 52, 58 and 59, having an area of 297 acres 1 rood, comprise the celebrated Broken Hill.

It will be seen by the sketch plan herewith, that the seven blocks named extend in a north-east and south-west direction for 150 chains 93 links, the lode showing distinctly for almost the entire length, and being of a thickness varying from 7 to 30 feet.

Two shafts have been sunk on the line, in which it is apparent the lode is going down almost vertical. In the deeper of these—on measured Block 13 (M.L. No. 49)—near the centre of the property—crosscuts have been driven through the lode at 100 feet, where it is 14 ft. thick, and at 150 ft., where it is 21 ft. 10 inches from wall to wall. At both levels rich ore showing chlorides freely has been cut.

A bulk sample of five bags, taken from right across the lode at 100 feet, gave an average assay result equal to 118 oz. of silver to the ton of ore. In the lower cross-cut for over 7 feet the lode shows chlorides freely, and the whole width is believed to be highly payable. At various places along the outcrop, for a distance of 800 yards south from this shaft, chlorides have also been found in the immense masses of surface ore of which it is composed, and the average results by assay from this surface ore are highly satisfactory. About 500 yards north of the main shaft No. 2 shaft is down 50 feet, and here the ore again shows chlorides.

Mineral leases 865, 866, and 867 run at right angles to the above-mentioned lease, and embrace the best timber there is in the locality, as well as a suitable tank site, on which there is already excavated a supply tank.



The Proprietary Mine in 1887.

Mineral lease No. 60 has an area of 40 acres, and is situated at a place called the Nine-Mile, five miles in the N.W. direction from Broken Hill. It is traversed by a strong galena lode, giving fair assay results, and which may prove in itself a valuable property.

Of the various leases specified, Nos. 46, 49, 50, 51, 52, 58 and 59 are gazetted as approved, and the Minister's sanction to the remaining four is expected in due course.

The proceeds of the sale of the 2,000 shares now offered to the public, viz., £18,000, will be apportioned in the

following manner:—£3,000 will be paid to the original proprietors (as registered on June 20, 1885), as payment for their outlay to date, and the balance of £15,000, less expenses connected with the forming of this Company, will be placed to the credit of the Company for the purpose of working the mines and purchasing necessary smelters, &c.

Taking into consideration the vastness of the lode, both in size and extent, together with its proved richness, the Provisional Directors believe that, in placing these shares before the public, they are inviting them to become partners in what appears to be one of the most valuable mining properties in Australia.

When the Company has been formed, the Head Office will be in Melbourne. A Board of three Directors will be appointed there, and at Silverton a local Board of four Directors.

The share list will open simultaneously in Melbourne, Sydney, Adelaide and Silverton on June 29, and will close on July 6, 1885, and on July 16, 1885, a meeting of shareholders will be held at De Baun's Hotel, Silverton, at 10 a.m., for the purpose of adopting articles of association, appointing Directors, and transacting other necessary business in connection with the Company.

Should any shares remain unapplied for when the lists close, they will revert to the Broken Hill Proprietary Co., to be disposed of in such manner as may be decided upon. Should the applications exceed the number of shares offered (2,000), they will be allotted pro rata. When the lists have closed the applications will be dealt with at Silverton, where the allotment will be made, and the result notified to applicants through the post with all possible despatch.

The first survey of Broken Hill was made by Mr. E. H. Dawson, and started on August 27, 1884. It was in the year 1885 that the township of Broken Hill commenced. Previous to that date it was nothing but mulga scrub, with two or three tents or humpies. The first house was built on Block 14 for Mr. Wm. Jamieson, the manager of the Broken Hill Mining Co.; then came Delamore's Hotel, which was pulled down out Lake's Camp way, carted into Broken Hill, and re-erected by Mr. A. F. Pincombe, one of the old pioneers, and who is well known on the Hill at the present day. In quick succession followed Sully's old store, the Silver King Hotel, and Brazill and Jones' store; then came J. R. Stewart, baker; Neilson & Co., butchers; Langemen's billiard saloon; Vaughan's Hotel; Ledgard's, Lee's, Finn's, &c., and Argent Street began to assume a busy aspect.

The shares offered to the public by the Broken Hill proprietors were eagerly taken up in Sydney, Adelaide and Silverton, but in Melbourne the applications were by no means so free. However, the list filled, and those who succeeded in obtaining shares may congratulate themselves on having made an excellent investment.

During the quarter ending June 30, 1885, 96½ tons of silver ore were entered for export at the Silverton Court House, of a declared value of £6,922.

The owners of the Cosmopolitan have disposed of this mine in a net cash transaction for £15,000 (Aug., 1885).

Mr. E. K. Brodribb, writing to his father, the Hon. W. A. Brodribb, says, in reference to the Broken Hill Mine: "The directors intend to put on two smelters at once, though in the two miles of ground there is room for fifty.

These two smelters will be capable of putting through 100 tons of ore per day. The average bulk assay obtained from the mine is 150 oz. to the ton; the lowest 60 oz. to the ton. We will go still lower, and say 50 oz. Silver is worth 4s. an ounce, which would give £10 for every ton of ore smelted, and 100 tons smelted daily equals £1,000 per day, or the enormous output of £365,000 per year for two smelters! Of course you know the Company has been floated, and the shares offered to the public at £9. In Silverton they are now worth £13 and no sellers."

The Umerumberka Silver Mine despatched, during the last six months (September 30, 1885), 433 tons 3 cwt. 3 qr. 12 lbs. of ore, the value of which totalled £10,421.

*Silverton*  
19<sup>th</sup> Aug 1887

*Received from W. C. Young  
the sum of eight pounds  
being part payment of  
Twenty five pounds for one  
third share of Claim Gorkan  
situated north and joining  
George White Claim near the  
Broken Hill*

*J. H. White*

Copy of Original Receipt. Claim referred to is now the "Central" Mine.



Argent Street in 1887.



The total value of silver, pig bullion and silver ore exported from the Barrier silver field during the two months ending October 31, 1885, was £44,270.

A large parcel of Pinnacles silver, over 11,000 oz., will be despatched by Hill & Co.'s coach for Adelaide.



Bullock Teams Carting Timber to the Proprietary *via* Block 14 (1887) before the railway-line was constructed.

of 1192 oz. of fine silver to the ton, while seconds gave 272 oz. to the ton. This ore was taken from the lowest level yet reached (250 ft.); the quantity treated was  $5\frac{1}{4}$  tons (of which about half was firsts). This may appear insignificant to the gold or copper miner, who is accustomed to calculate his output by the hundred tons, but when the short time occupied in obtaining the parcel is considered, and also that it gives a clear profit of £500, the comparative value is apparent. A hundred tons of quartz, yielding 2 oz. of gold to the ton, would be regarded by the gold miner as a fair crushing for half-a-dozen men to obtain in a fortnight or three weeks, but under the ordinary circumstances of a new field it would not give a greater profit, after handling and crushing, than has been netted by the little parcel of silver ore mentioned.

The "Day Dream," one of the principal mines on the field, is situated about 10 miles in a northerly direction from Silverton. The discovery of this, as of nearly every large mine on a new field, has a romantic history attached to it. Years before the prospector ventured into the Barrier, the lonely shepherds on the out-stations of Mundi Mundi run wandered over the spot. Here and there cairns of stones have been thrown together as landmarks, but flock-tenders little brooked of the treasure at their feet. Two of the old pioneers of Thackaringa—W. Sinclair, an intelligent miner, and Joe Meech (as he is known to the Barrier)—pushed out North into the ranges in the hope of discovering another Gipsy Girl or Umberumberka. Days were passed on short supplies of food, and often with only a pint of water a day, until their perseverance was rewarded by the finding of what is now the Apollyon mine (December, 1885). A camp was pitched in the neighbourhood, and a further search made for lodes which the surface indicates in almost every direction in the locality. Sinclair's version of the discovery is that a tacit understanding existed between them that they should choose opposite directions, and report results to one another in the evening camp; that his mate found the Day Dream (or Meech's Blow, as it was originally known by), pegged it out, registered it in another name, and claimed the whole.

A law-suit resulted between the partners, which was carried on in Sydney. Meech sold one-third of his interest for £1,000, and gave another to some Melbourne speculator to carry on the law proceedings. In the meantime the Barrier Ranges Mining Association stepped in, purchased a portion of the mine, and terminated what gave every promise of protracted litigation. The Association acquired eight-tenths of the claim in August, 1884, the other ninth being held by Messrs. Bagot & Co., of Adelaide. In conjunction the dual proprietary worked the mine until March, 1885, when the proprietors decided upon floating it as a company. The change was made for the more effective working of the property. The capital of the company was fixed at £90,000, in 72,000 shares of £1 5s. each. They were issued at £1 paid up, 64,000 to the Barrier Ranges Association, being share for share on the stock of that proprietary, and 8,000 to Bagot & Co. The total area of the claim is 40 acres, which is now held under mineral lease. The silver product of the Day Dream ore run through to date is 120,000 oz., valued at £24,000.

The Day Dream directors have decided to declare a first dividend of 1s. per share, payable on the 18th November, 1885.

Messrs. Lawrence & Brooks, of Adelaide, report the successful floating of the Britannia and Scotia Silver Mining Company, Mount Gipps, with a nominal capital of £64,000 (November, 1885).

Chlorides were struck in the Elsie May mine at 80 feet. The lode is of a grey plumbic ore of good quality, carrying occasional patches of galena. Prospects have improved at the Rise and Shine by the discovery of chlorides in a 2 feet lode, which is making towards a strong lead lode in the ground.

At the "Lubra" the manager announces a highly satisfactory return from a parcel of the Company's ore treated at the Day Dream works (November, 1885). Firsts gave an average yield

Mining operations are being vigorously pushed on at Broken Hill mine. The main shaft has now reached 212 feet. The air shaft reaches the level of the main drive south, and efforts will be made to hole through as quickly as possible, so as to improve the ventilation. This shaft of late has been giving very beautiful ore—carbonate of lead, showing occasional chlorides, and the whole carrying nice silver. The lode in No. 4 at present depth is simply looking grand, marvellously rich ore showing in the bottom and on all sides. It is a pretty kaolin ore of immense richness, which first appeared at 145 ft., and has since continued. The ore occurs in three distinct colours—blue, red, white—all of equal richness, although the occurrence of chlorides is different in each. Thus the blue ore, which resembles brittle silver, is impregnated in such a manner as to produce the impression that the chlorides have been squeezed into the kaolin—the red ore carries the chloride in streaks—and in the white ore they occur in small lumps.

At the first ordinary general meeting of the shareholders of the Broken Hill Proprietary Company, held at Melbourne on December 15, 1885, the report showed that a quantity of selected ore, weighing 48 tons 5 cwt. 3 qrs. 15 lbs. was treated at Melbourne by the Intercolonial Smelting and Reducing Co., at Spottiswoode; produced 35,605 oz. 10 dwt. 19 grs. of silver, which was sold for cash at a satisfactory price, netting £7,442 12s. 11d. The silver was exhibited, by the courtesy of the City of Melbourne Bank, and elicited much public interest.

The Bank of Australasia will open a branch at Silverton to-day (December 16, 1885), under the management of Mr. William A. Ross.

The total revenue collected by the Customs at Silverton for the month ending November 30 was £2,039 19s. 9d. The declared value of exports for the same period was: Wool, £9,113; silver, silver ore, and pig bullion, £14,336; total, £23,449.

It was on November 8, 1885, that the first meeting of the Progress Committee took place. Mr. William Jamieson, manager of the Broken Hill mine, was president, and the other members were Messrs. Vaughan, Renowden, Ramsden, Duff and Clayton (secretary). The first meeting place was at Ramsden's boarding house, and the first motion passed urged the appointment of a post-mistress, and the advisableness of Broken Hill being included in the mail coach route between Silverton and Mount Gipps. It was also agreed that each member of the committee should contribute 5s. per sitting towards the cost of cutting that mail track through—that track is now Argent Street! At the second sitting it was resolved that the Government should be petitioned to set apart five acres as a water reserve. Iodide and Oxide Streets now run through the proposed sites.

Speaking of progress, the year 1885 must not be closed without alluding to a most important item, viz., that the first baby was born in Broken Hill on September 3, 1885.

## 1886.

The year 1886 proved a most important one as regards the Barrier silver field—Broken Hill rising rapidly while Silverton and district gradually declined, as will be seen by the facts herein related. On the first day of the year Mrs. Renowden was appointed post-mistress, at the munificent salary of £10 per annum, and to this lady belongs the honour of being the first Government official in Broken Hill. The letters then numbered 20 per week, increasing to 40 in February, and about 200 in August.

The crosscut (Broken Hill Mine) from the main shaft at 212 ft. level had penetrated through 10 ft. of lode, and the drive still held a full face of ore. It continues to be marvellously rich, the chlorides appearing in a heavier form and even more plentifully than they did when the lode was first cut. The drive or crosscut is being taken into a height of 7 feet. Rich chlorides are to be seen anywhere in the sides and in the face, and a band of greenish ore, about 18 inches thick, near the top, has the look of being pure chloride, and it is certainly not far from it, for the bulk assays are



Argent Street looking South, 1888.

said to show an average of 5000 oz. of silver to the ton. Shares hardened at Silverton at £20, at which figure there were sales.

An arrangement has been made by the Directors of the Broken Hill Proprietary Co. to have 1200 tons of ore put through the Association's smelting works. The parcel will be run at the rate of at least 100 tons a week. The intention is to grade this ore between 200 oz. and 300 oz., keeping the quality above the lower and below the higher figure. The yield to be anticipated may therefore be set down roughly and safely at from 8 to 10 tons of silver—in other words, £40,000 or £50,000. This will put the big mine well on its legs, once and for all. It will enable the Directors to put their own furnaces into blast, with a supply of 2,000 tons of coke on hand, clear of debt, and with a large reserve balance at the banker's. The mine should, therefore, within the next six months, commence to pay dividends. Mr. S. R. Wilson has recently been appointed General Manager.

Mr. Chas. Rasp, whose name will be mentioned for years to come as the discoverer of Broken Hill, left Silverton (February, 1886) for a holiday, which he intends spending in visiting all the principal mines in Victoria, New Zealand and Tasmania.

**February 24, 1886.** Suspension of the Commercial Bank of South Australia. The doors were closed and payment suspended at the Silverton branch of the above Bank at noon this day.

The total declared value of silver ore, fine silver, and argentiferous lead entered for export at the Silverton Custom House during February, 1886, was £19,796, of which sum the Barrier Ranges Silver Mining Association's exports covered £12,362; the Umberumberka Silver Mining Co. was next with £3,200, and the Maybell North third with £3,000.

The total quantity of fine silver despatched from the Day Dream Smelting Works during the fortnight ending March 2, 1886, was 63,689 oz., the monetary value being £12,737.

The Broken Hill Proprietary shares have rapidly climbed up to the highest point yet reached (April, 1886), sales being quoted at £45 in Melbourne, and £47 10s. in Adelaide, a transaction being effected in Adelaide by cable from London, when a London purchaser secured 40 shares at £45 each.

Applications for 10,000 shares in the Victoria Cross have been received in Melbourne (May, 1886), and 5,500 in Adelaide, and a conditional number of shares are also applied for in Silverton.

The second smelter at the Broken Hill was started on May 11, 1886, at 4 o'clock, and ran with entire satisfaction.

The returns from the Broken Hill Proprietary Company's furnace for the week ending June 9, 1886, were as follows:—Quantity of ore treated, 214 tons; bullion made, 35 tons; carrying 27,674 oz. silver. Total quantity of ore from mine treated (by their own furnaces) to date given 2,103 tons; total yield in silver, 272,779 oz.

Maybell North Company will shortly declare another dividend of 1s.

The half-yearly meeting of the Broken Hill Proprietary Company was held at Scott's Hotel, Melbourne, on June 30, 1886, W. P. McGregor, M.P., presiding.

The Directors recommended a first dividend of £1 per share, payable on the 26th of July—it was explained that the delay in the payment of a first dividend was necessitated by the time occupied in the transmission of the bullion from the mine to Adelaide. The Directors further recommended that for the future a sum not exceeding 25 per cent. of the amount available for dividends be set aside for the creation of a permanent reserve fund, until such time as such reservation shall have reached a total of £32,000.

The General Manager (S. R. Wilson) had forwarded a most favourable account of the mine, which was read out. A statement of bullion produced from the Company's smelter, from the 13th May to 24th June (seven weeks), shows:—1,603 tons 18 cwt. 3 qrs. 27 lbs. ore treated, which yielded 298 tons 15 cwt. 1 qr. 6 lbs. bullion, containing 135,207 oz. of silver (or an average of 84.29 oz. to the ton) and 293 tons 6 cwt. 2 qr. 7 lb. lead. The silver, estimated at 3s. 9d. per oz., works out at £25,351 6s. 3d; and the lead, at £4 per ton, £1,173 4s., or a total gross value of bullion produced of £26,524 10s. 3d.

The total value of mineral products, refined silver, lead bullion, and silver ore entered for export at the Custom House, Silverton, during the month ending July 31, was £34,878, of this sum £24,949 going to the credit of the Broken Hill Proprietary Company, £6,429 to the Barrier Ranges Silver Mining Company, and £3,100 to the Umberumberka, the balance being made up of smaller amounts.



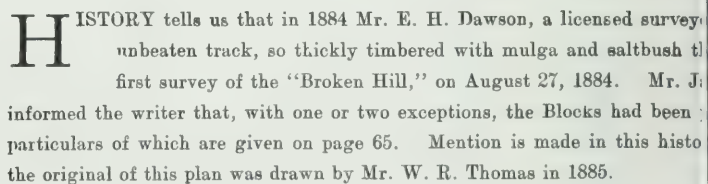


**Broken Hill, looking East, 1907.**



**Chloride St. in 1888.**

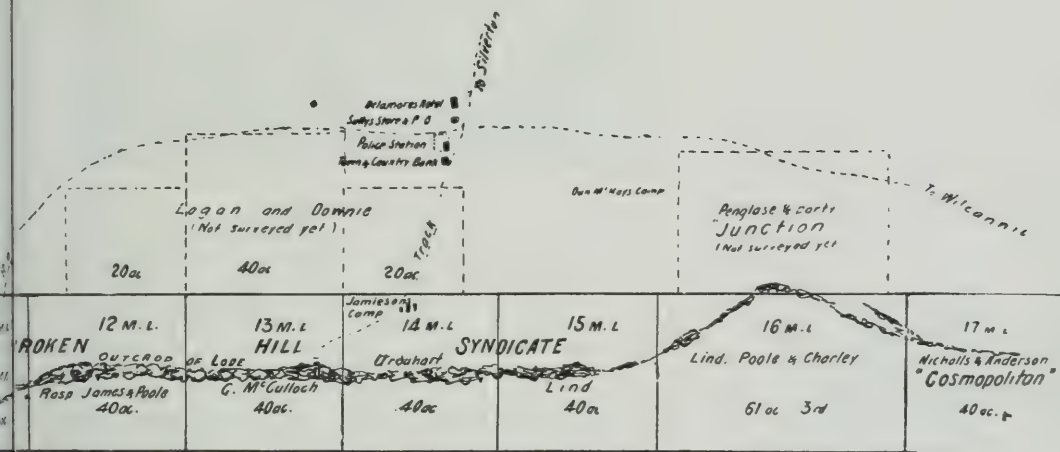
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Taking the plan from left to right, we find that Blocks 5 and 6 are owned by the Sulphide Corporation, Ltd.—No. 9 by the Sulphide Corporation, Ltd.—No. 10 by Block 10 Co., Ltd.—Nos. 11 and 12 by the Block 12 Company, Ltd.—Nos. 13 and 14 by the Block 14 Company, Ltd.—Nos. 15 and 16 by the British Company, Ltd.

# BROKEN HILL LODE.

85



in the Mines Department, came from Thackaringa, passing over a rough, at times it was almost impassable, but, once arrived, he commenced the Jamieson had previously been over the ground with a trial line, and Mr. Dawson pegged out correctly, but these exceptions gave birth to another mine, the of Jamieson's camp on Block 14—the old chimney stack, page 17—where

and his partner, who held the contract for sinking Rasp's shaft.

owned by the South Blocks Ltd.—Nos. 7 and 8 by the South Silver Mining Company, Ltd.—Nos. 11, 12, and 13 by the Proprietary Company, Ltd.—No. 14—and No. 17 by the North Mining Company.



**Extract from the Presidential Address at the Annual Meeting**  
**of the**

# **Australasian Institute of Mining Engineers**

**(G. D. DELPRAT, May, 1906).**

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## **Showing the Population dependent on Mining.**

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The mining population—the number of men directly engaged in mining—was, in New South Wales, about 39,000; in South Australia, 7,000; in Queensland, 17,600; in Victoria, 25,000; in Western Australia, 19,600; and in Tasmania, 6,200—a total of 114,400. Taking the earnings of these men at an average of say £2 10s. per week, the weekly wages paid would amount to £285,000, or about £15,000,000 per annum. Broken Hill had a splendid basis on which to ascertain the approximate number of people who were entirely dependent on the mining industry for their means of livelihood, and he would assume that the proportion held good throughout Australia. They found that, with 7,500 men employed directly in mines on the Barrier, there was a population of 39,000 souls, and they could therefore take it that, for every one man employed in a mine, there were at least three absolutely dependent on him for their daily bread. In Australia, therefore, there would be 456,000 people directly dependent for their livelihood on mines, out of a total of three and three-quarter millions, which meant one in every eight. That was not all. Look at the vast army of people who, though not directly employed on mines, made a

living by catering for the wants of mining centres. Think of the revenue the railways, with their large army of operatives, derive from the mining industry, by carrying goods, coal, timber, ores, and so on; of the shipping companies, that carried coal, timber and produce; of the engineering establishments, where engines and machinery were made; of the rope factories, candle and explosives; of the farmers, who found a ready sale for their products, because there was a mining community ready to absorb the fruits of their labours; of the merchants, that supplied the necessities of life; of the wholesale and retail dealers, the banks, and (he had almost forgotten) the vast army of shareholders, who, if not entirely dependent for their living, at any rate counted on produce from the mines for their luxuries. The number of people directly and indirectly dependent on the mining industry was so enormous that, if these were to be removed from the continent, the result would reach farther than one would at first imagine. Whole municipalities would disappear; others would be greatly impoverished; Australia would present a crippled appearance, and would bear quite a different aspect from the prosperous Australia of to-day.

The First Office of the Proprietary Company.



The Old Chimney Stack.

One of the most historical spots on the Hill. Beside this Stack in a large tent there lived in the early days Mr. Wm. Jamieson and his assistant A. Reid—W. R. Thomas, Alf. Orman, 2 or 3 axemen, cook, &c.

It was in this tent the destinies of Broken Hill were laid, it was here that all business with the mine was transacted, and here in this tent Mr. Thomas drew the plans of Block 14, British, Block 10, &c.

The Company has lately placed a railing round the old spot, in order that it may be preserved.

The Broken Hill Proprietary Company started their smelting works on May 6, 1886. The following figures show the result obtained from that date to August 19, during which time with the exception of about two weeks one furnace only was in blast:—

	Tons	Cwt.	Qrs.	Lbs.
Ore treated ..	3333	18	0	27
Bullion treated ..	798	0	2	15
Silver Ore treated ..	10	9	3	4

The quantity of silver in ounces is 342,655, and the monetary value of the yield in lead and silver, reckoning the former metal at £9 per ton, and the latter at 3s. 6d. per ounce, £67,146 17s. These figures are exclusively for ore treated on the mine. Added to this the returns from parcels smelted at the Day Dream works and in Melbourne, and during the last five days the grand totals are:—Quantity of ore treated, 4,401 tons; yield in silver, 533,990 oz., or about 16½ tons. Surely these figures speak for themselves.

The mineral products entered for export at the Custom House, Silverton, for August, 1886, was £13,551, as compared with July, £34,878. The shrinkage is entirely attributable

to the impracticable state of the roads during last month, caused by the heavy rains, and the same cause is still forcing owners to hold back bullion and ore. Of the amount of £13,551, Broken Hill contributed £11,680; Treasure, £1,200; Pinnacles, £421; Nil Desperandum, £200; Omeo, £50.

**Concentration.** The adaptability of this process to the mines on the Barrier is unquestionable, and until it is brought into general use many of the best mining properties must have but a languishing existence. It is safe to say there are millions of tons of ore on the Barrier—much of it lead ore—containing from 10 to 20 or even 30 oz. of silver to the ton. Practically, at the present stage in the history of the field, this ore is worthless, yet we have indubitable proof in the experience of the American miner that it may be worked to great advantage and with large profit, and the sooner we apply ourselves to the study and adoption of the processes of treatment under which a result so immensely beneficial to the general prosperity may be achieved, the better it will be for the field. Low grade silver ores, not carrying a high percentage of base metal can be worked to great advantage by concentration. In some parts of the States, by the skilful use of the concentrator, a profit is taken from ore of as low a grade as 6 oz. of silver to the ton.



The Top Peak of the Proprietary in the early days.

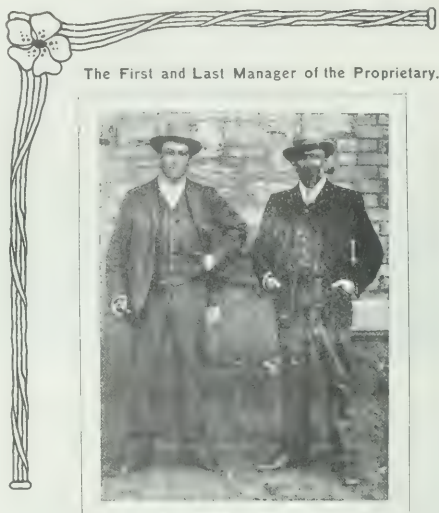
The following is a most interesting statement, showing the amount of exports entered at the Custom House, Silverton, during the quarter ending September 30, 1886, from which it will be seen that the declared value of mineral and pastoral products of the

district exported during that period was £129,849, and will also serve to show the rise of the Broken Hill mine and the gradual decline of Silverton and district:—

Broken Hill Prop. Co., 1,058 1-3 tons silver lead	£87,549
Barrier Ranges S. M. Co., 37,912 oz. fine silver	7,494
Maybell N. Silver Mining Co., 31½ tons silver ore	3,250
Stansfield & Co., 1½ tons silver ore .. ..	200
Pinnacles Silver Mining Co., 45½ tons silver ore	711
Umberumberka S. M. Co., 406 tons silver ore	8,740
Nil Desperandum S. M. Co., 1½ tons silver ore	200
Treasure Silver Mining Co., 2¼ tons silver ore	1,200
Omeo Silver Mining Co., 14½ cwt. silver ore ..	50
Kate Silver Mining Co., 6 tons 6 cwt. silver ore	633
Lubra Silver Mining Co., 4½ tons silver ore ..	540
Baltic Silver Mining Co., 2½ tons silver ore ..	1,865

#### Pastoral Products.

Mount Gipps, 393 bales of wool .. ..	£4,446
Balaclava 171 „ „ .. ..	1,053
Mundi Mundi 364 „ „ .. ..	2,316
Mootwingie 169 „ „ .. ..	1,017
Burta 179 „ „ .. ..	2,148
Sturt's Meadows, 40 „ „ .. ..	248
Langwirra 198 „ „ .. ..	1,540
Corona 373 „ „ .. ..	3,600
Skins and Hides, Various .. ..	1,049



The First and Last Manager of the Proprietary.

Right—MR. WM. JAMIESON, First Manager, 1884.  
Left—MR. G. D. DELPRAT, Present Manager, 1907.

The second dividend of £1 per share, equal to £16,000, was paid by the Broken Hill Proprietary Company on October 27, and the third dividend of the same amount was paid on November 24, 1886, bringing the total amount of dividends declared to date £48,000.

In October of the same year there was a discovery of alluvial gold at Winininni Station, South Australia, and a rush of men to Teetalsa from the Barrier took place, consequently work at many of the mines was absolutely suspended through lack of hands. In one week (7 days' run) the smelting-house figures of the Broken Hill Proprietary show a gross value of considerably over £10,000.

Early in November of this year a prospectus was issued in Adelaide to form a company to work another mine at Silverton. The new venture will be known as the Big Hill Silver Mining Company. The site of operations is on the same line as the Broken Hill Proprietary mine, and the same lode, it is believed, runs through both. The area of the Big Hill Company is 300 acres, consisting of eight mineral leases, in addition to others proposed to be taken up. Assays from the property have been made, and show good results, bulk trial from surface stuff giving 14 to 16 oz. to the ton. The promoters propose opening the mine by driving a tunnel in the Hill. The Company will have a nominal capital of £100,000. The proprietors, Messrs. Penny, Hamlyn, Hoffman and Low, take 50,000 shares paid up to 15s. and £1,000 cash as payment for the property, and the remaining 50,000 shares are offered to the public as paid up to 10s. The Hon. Thos. Playford, M.P., and Hon. J. Ramsay, M.L.C., are amongst the Directors.

The Silver Star branch of the G.U.O.O.F. was successfully opened on Wednesday evening, November 17, 1886, by A.D.M. Bro. E. A. Archibald, at Reynolds' Hotel, Broken Hill.

The Broken Hill Proprietary declared a fourth dividend of £1 per share, payable on December 15, 1886.



"Block 10" in the early days.



The new prospectus of the Silverton Tramway Company attracted much attention, due to a project, on the prompt carrying out of which depends to so great an extent the prosperity of the Barrier district. Some changes have been effected in the terms under which the Company is constituted, briefly described as follows:—Nine thousand and £5 shares, paid up to 2s. 6d. (equal to 5,000 £1 contributing shares originally issued, on which 6d. was paid), are absolutely reserved for these holders, who will have a further prior right to apply for 16,071 £5 shares more; that is to say—for every five £1 shares applied for in the old Company they receive one £5 share in the new, and have the prior right of application for an additional  $1\frac{1}{2}$  share (nearly), or as 9,000 is to 16,071. Those who decline to take advantage of these terms have the privilege of receiving a refund of their sixpences, less brokerage (3d.) and other expenses.

The following statistics  
**December 31,** will give the reader a  
**1886.** fair idea of the trade  
of Silverton, especially

when compared with previous figures given in this book. The value of foreign imports entered at the Custom House, Silverton, during the year ending December 31, 1886, was £336,280 4s. 8d. (goods imported overland or under re-introduction certificate are not included). A comparative statement of revenue collected during the years 1884-5-6 is as follows:—



"The South" in the early days.

Month.	1884			1885			1886		
January .. .. .	75	6	8	853	7	5	2174	16	2
February .. .. .	1029	7	0	652	15	7	2130	7	11
March .. .. .	319	17	3	1395	12	8	2000	18	7
April .. .. .	602	6	1	1231	15	6	2363	16	5
May .. .. .	381	12	8	1383	8	10	3237	8	2
June .. .. .	943	0	3	1905	0	9	2624	17	7
July .. .. .	3056	3	2	2134	5	7	3072	11	11
August .. .. .	3301	1	3	2864	2	10	2180	13	8
September .. .. .	2324	4	10	1756	6	6	3571	16	1
October .. .. .	2021	12	9	1511	13	3	2260	14	7
November .. .. .	1489	18	7	2039	19	0	1415	3	8
December .. .. .	1608	10	6	2425	11	1	1605	10	7
	£17,154	1	0	20,153	19	0	28,638	15	4

The following statement shows the amount entered for export during the year ending December 31, 1886:—

<b>Live Stock.—</b>	Cattle, 10,442 .. .. .	£83,397
	Horses, 104 .. .. .	712
	Sheep, 150,676 .. .. .	70,761
<b>Mineral Products.—</b>	Galena and Silver Ores, 1,711½ tons .. .. .	67,233
	Argentiferous Lead, 2,556½ tons .. .. .	188,486
	Silver, refined, 410,256 oz. .. .. .	81,910
	Tin Ore, 41 cwt. .. .. .	69
<b>Skins.—</b>	.. .. .	1,607
<b>Wool.—</b>	Greasy, 6,713 bales .. .. .	66,490
	Scoured, 4,737 .. .. .	51,618
<b>Sundries.—</b>	Various .. .. .	473
	Grand total of exports for 1886 .. .. .	£612,756

The closing of the year 1886, with such figures as above, proves beyond doubt that Broken Hill is destined to become one of the biggest mining centres of the world.

It is now three years since silver-mining was first heard of on the Barrier, with the exception of the Thackaringa galena lodes, which had been known and to some moderate extent prospected some time before; but the remoteness of the district and the expense of carriage formed a sufficient impediment to any attempt to establish a regular system of silver mining on the comparatively low-grade ores, which, being mostly galena, although abundant in lead, were not rich in silver. Prospectors from the Thackaringa district, however, gradually pushed their way N. and E. in search of better ground, and veins of ore were found which seemed of a sufficiently encouraging nature to induce them to continue the pursuit.

Some strange-looking stuff was occasionally found, which effectually puzzled them as to what its nature might be, till the happy thought occurred to someone to send a sample of it to Adelaide for trial by an assayer. This



"The Central" in the early days.

lucky stroke brought to light the fact that the mysterious substance was chloride of silver, yielding a fabulous percentage of the metal, which fact, getting speedily noised abroad, drew a rush of miners from all quarters, and stimulated prospecting to a very great extent, as previously shown in the opening chapter of this book. Any ground that yielded horn silver was highly prized, and claims containing a passable show of it changed hands at prices which ultimately turned out very good for the sellers, but left the buyers considerably richer in experience than in pocket.

The rage for rich ore continued for a long time, whilst the poorer classes of ore, though known to exist in considerable quantities, were neglected; but at length the fluctuating and uncertain nature of the majority of the small rich veins became too marked to escape notice, and attention was directed towards the larger but lower grade lodes, and holders of the former class of claims

had to lament their refusal of offers which in their first exultation they despised. Amongst the first found were the once famous Apollyon and Bobbie Burns, but now their names are dead, like a legion of others, although perhaps, it is fair to say, that very few were effectually tested, and probably if more skill and capital had been applied the results would have proved good. The most conspicuous instance of success amongst the once-despised big lodes is the Broken Hill Proprietary Company's mine—the mine that, three years ago, they called the "hill of mullock," but which has paid £64,000 in dividends during the present year of 1886.

The more important ore-bearing zones known at present are the Thackaringa district, the Umberumberka, the Pinnacles, the Broken Hill, the lines S.W. and N.E. of it, including Round Hill and Piesse's Nob, some of the ground near the Mount Gipps Hotel, the Rockwell Paddock, the region of the Maybells and Stephen's Creek (or a range to the N. of it), and a large area round about Purnamoota, the Day Dream and Hen and Chickens line, and the ranges along both sides of Paddy's Flat.

To the N.E., in the direction of the Mount Gipps Hotel, are the Eaglehawk, Minerva, Silver Age, &c., whilst between Mount Gipps Station and Purnamoota are the Maybell, Manola, Kate, Royal Mint, Silverdale, Victory, Caledonian, &c. Round about Purnamoota is a great cluster of claims, too numerous to mention. The more conspicuous are the Treasure (Morris' Blow), the Lubra, One Tree, Ballarat, Baltic, Terrible Dick, Great Northern, Eclipse, Silver King, Black Prince, La Speranza, Sinclair's Group, &c. Some of these claims have been fairly prospected and well managed, but may have been imperfectly worked, and but few reached any great depth, so that much remains to be done to settle the question of their **real value**.

About 10 miles to the S.W. from the Proprietary is situated the Pinnacles Group of claims, which present a series of lodes that, assuming them to develop in equal ratio to what they have hitherto done, may render the property one of the best on the field.

At 10 or 12 miles E. of the Pinnacles is the Rockwell Paddock, in which from 50 to 60 claims are taken up, but very little work is being done in proportion either to the number or the valuable indications presented on some of these partially opened.

To the North, and close to Silverton, are the Umerumberka, the principal of which is well known as a good, steadily productive mine, with deeper and more regular workings than almost any other on the field, of which it is probably the oldest.

On the road from Silverton to Purnamoota are the Uno claim, the Hen and Chickens, and the Day Dream, with a good many other on the ranges just off the flats and stretching towards the Seven-Mile Hut on Stephen's Creek.

From the foregoing remarks, the prospects of the field are obviously of a favourable character, for, although many hastily-taken-up claims will probably be abandoned, there will remain many others in which ore will be found in sufficient quantity to prove payable, providing both capital and machinery are employed.

On Page 30 a list will be found, showing the share market for 1885-1886.

Mr. Schlapp, the new chief in the smelting department of the Proprietary, who arrived in Broken Hill from America on Sunday, April 17, 1887, went into office immediately, and he will be for some time fully occupied in acquiring a perfect analytical knowledge of the different ores produced by the mine, and in effecting certain important changes in the smelting-house. Amongst other changes the open water-jacket, the patent for which La Monte received his royalty, is being done away with, and the jackets closed.

Later four furnaces were working well and with ease, and the slags are giving extremely satisfactory tests, the average being about 3 per cent. lead and 16 dwt. silver. This is remarkably low, and, while affording the most ample evidence of Mr. Schlapp's skill as a smelter, it is satisfactory to know that it means a saving in lead alone of quite £600 a week compared with previous work.

The first anniversary of the start of the Broken Hill Company's smelting works was May 6. During the year the Company's furnaces produced a total weight of 3,891 tons lead, and 1,529,448 oz. silver (nearly 48 tons). The roughly estimated value of the year's yield is £385,000.

The statement of imports and exports for the half-year ending June 30, 1887, are as follows:—

**Imports, £111,341 3s. 2d. Exports, £171,492.** The detailed account of exports was made up thus:—Cattle, 2,432, £17,051; Sheep, 39,313, £20,908; WOOL—Scoured, 23 bales, £271; Greasy, 94 bales, £1,316; Skins, £368; Hides, £162; SILVER ORE, 447 tons 16 cwt. 2 qrs. 0 lbs., £14,668; Argentiferous Lead, 2,241 tons 16 cwt. 1 qr. 3 lbs., £116,424; Tin Ore, 2 tons 5 cwt. 2 qrs. 11 lbs., £54; Miscellaneous, £270. Total, £171,492.

The following list of mineral exports for the month of August, 1887, serves to show that, but for the Proprietary mine, there would be but little life on the field:—Broken Hill Proprietary Co., £47,219; Kate Silver Mining Co., £150; Royal Mint, £20; F. J. Smythe, £50; Baltic Silver Mining Co., £50; Maybell North Silver Mining Co., £1,900; Umerumberka Silver Mining Co., £1,205; total, £50,594.



The Managers of the Mines in the early days.

Back Row—RODERIC MCKAY,  
"South."

COLONEL MORGAN,  
"British"

RANDOLPH ADAMS,  
"Central."

Sitting—ZEBENA LANE,  
"Block 14."

JOHN HOWELL,  
"Proprietary"

J. WARREN,  
"Block 10."

C. H. HAYWARD,  
Secretary to John Howell.



The first District Court held in Broken Hill was on June 1, 1887, before Judge Backhouse. On August 23 of the same year Mr. William Knox, secretary, and Mr. Geo. McCulloch arrived in London, bearing with them a full power of attorney from the Directors of the Proprietary mine to dispose of Blocks 15 and 16 in London.



"The Junction" in the early days.

On September 16, 1887, a special train arrived at Broken Hill from Silverton at 9.45 a.m., with a Parliamentary party on board, thus completing the last link in the chain—that of connecting the South Australian capital with Broken Hill. The Barrier owes much of its prosperity, first, to the wise enterprise of South Australia in extending her system of railways to the border, and, second, by the prompt action taken by a few of the leading people of Silverton, in the formation of the company to provide the last link, so politely refused by the New South Wales Government, and which has proved a veritable gold mine to the Company.

The official opening took place on January 12, 1888, when the line was declared open at Broken Hill by His Grace the Duke of Manchester, in the presence of a large concourse of people.

Shortly after 10 a.m. a special train from Silverton brought on the distinguished visitors, who were guests of the Tramway Company. The party included, besides the Duke of Manchester, Mr. De Courcy Browne (M.P. for Wentworth), Messrs. W. J. Lyne, T. Ewing, J. C. Neild, and Gormley, also members of the New South Wales Legislature, Mr. A. Catt (Commissioner of Works), Messrs. J. C. Bray and E. T. Smith (M.'s P. for South Australia), Mr. McGregor (Chairman) and Mr. Grant (a Director of the Tramway Company), while the Governor of South Australia was represented by Captain Mecham, his Excellency's aide-de-camp. In the evening the opening was celebrated by a banquet.

Mr. W. H. Patton, the new General Manager of the Proprietary, arrived in Melbourne from America on the 24th September, 1887, and immediately proceeded to the mine to view the workings and arrive at a decision as to what works of development he would recommend, the late manager, Mr. S. R. Wilson, having agreed to continue till November 8, 1887, when he gave up formal possession to Mr. Patton.

The year 1887 and 1888 opened up many tin mines. Although the knowledge long existed that tin was to be found in a fair percentage in large lodes in Poolamacca, very little attention was paid to it, the majority of investors and speculators being little inclined to stake their money in that metal. The first signs of a change came in January last (1888), when Mr. Otto Fischer and some of his friends purchased the ground now held by the Cosmopolitan Company, on the south end of the field. From this time a rush set in, and claims were pegged out in all directions. Discoveries were made in numerous parts of the district, and over 850 leases, averaging 40 acres each, were applied for, so strong was the desire to obtain ground. The principal mines were: Barrier, Bischoff, Caloola, Mount Euriovie, Lady Don, Ruby, Victory, Mount Lake, Dalcooth, &c.

The rise in the price of copper about this time attracted attention to the large surface show, and in several claims parcels of ore are being prepared, and in a short time the exports of copper from the Barrier should be considerable.

The Broken Hill Proprietary Company's mine looks as well as ever; in fact, it appears as if the more work done the more ore is left in sight. When it is taken into consideration that the mine is yielding over  $1\frac{1}{2}$  ton of pure silver weekly, besides 250 tons of lead, some idea is obtained of the greatness of this mine. A very rich shoot of heavy carbonate ore has come on in the 216 ft. level, south of McCulloch's shaft, the width being nearly 100 ft. and no walls in sight.

The early part of the year 1888 will ever be remembered as the year of the "Great Boom." Writing on the subject, R. De S. Magnussen says: "The floating of a large number of subsidiary companies, and the formation of many minor concerns, led to Broken Hill's first 'boom.' Men went mad—stark mad. A boom had started, and no one had any other thought but to buy and sell shares—shares in any shape, shares in anything, so long as they were shares. The whole country for miles around was pegged, and syndicates were floated hourly, the promoters in

some cases giving £1,000 for work done and half the shares. People were trading on each other's credulity more than upon the earth's richness, and the amount of credulity to be found was astounding. A syndicate would be formed, and, while the promoters were away pegging out the ground the secretary was in town preparing the scrip and prospectus. When the promoters returned they would find the prospectus before the public, the shares over-applied for, and selling in the street at a premium. All day and night swindles were being worked, and every second man was a mining expert. On some of the claims scarcely any work was done, and yet the shares were selling like wildfire. Bank clerks threw up their positions to become sharebrokers, and men who had lived for many years upon small salaries found thousands passing into their pockets—and out again."

The "boom" spelt ruination to many, and was the cause of shutting down many a good mine that might have been working for many and many a year.

A detailed statement of the share market is given on page 30—but, to show the contrast in figures, the following is taken from the South Australian "Register":—"A contrasted examination of some of the leading lines in stocks should be keenly, if mournfully, interesting to speculators at this time. Premising that what is true of large stock, is true in proportionately as great a degree of smaller, let these facts be simply stated:—Broken Hill Proprietary shares reached £412 at a time of great excitement, when it was predicted that they would yet see even £1,000. The capital value of the Company at £412 was £6,592,000. On Wednesday, May 23, 1888, taking £232 as the quotation, that value was more than £3,700,000 less. To all appearance the mine itself is quite as rich now as it was three months ago. It should be remembered, however, in estimating this particular stock, that in the interval between the two quotations certain bonuses had been paid off the shares, and of course there had been a decline in silver. In February there were sales of Block 14 at £16. They represented a capital value of £1,600,000; the same shares changed owners on the Wednesday already referred to at £5, the par value, showing a depreciation in capital value of £1,000,000. Souths were sold one night during the 'Boom' as high as £22, and there were comparatively numerous transactions at £20. At the latter rate the value of the mine, allowing a reasonable discount for contributing shares, was about £1,750,000. On Wednesday Souths were £4 7s. Taking £4 10s. as an average, the loss in calculated value is at least £1,250,000. British Brokens had been sold up to £8 13s., which means a capital of a little more than £2,000,000. Sales on Wednesday at £3 involve an apparent loss of £1,270,000, using round numbers. Centrals sold in numbers up to £14, equalling a capital of say £950,000, allowing for contributing shares. Wednesday's quotation was down to 36s. That involves a decrease at the rate of say £800,000. Junctions sold up to £9, or a capital value for the mine of £910,000, reduced by Wednesday's quotation of 52s. to £260,000. The comparison need not be taken beyond these half-dozen mines, and, putting the figures into line, we have this interesting little statement of reductions in share market value of mines:—

Broken Hill	..	£3,700,000
Block 14	..	1,100,000
Souths	..	1,250,000
British	..	1,270,000
Central	..	800,000
Junction	..	640,000
		<hr/>
		£8,760,000

"If any man had suggested that these mines were worth £8,000,000 more two or three months ago than they are to-day, he would be deemed a fit subject for examination by the lunacy doctor, but that is the practical verdict of the shareholders under the special circumstances which have been explained, the consideration not really being modified, only by the fact that many people who bought shares at the higher prices hold them still. Just as surely as shares have fallen so low, so surely will they rise again, to some extent, at any rate, for all this time the miners have been at work, and, whether shares be high or low, the actual working capital cannot be affected in any way."



General View Proprietary Mine 1887, with Block 14 on the left.

In June some decidedly reassuring symptoms were visible in the state of the market for silver stock. There was a general advance of price, and for days the tendency was fully confirmed; so that there are grounds for the belief that values will gradually, if not swiftly, ascend to their normal height.

Silverton at this time evidently had confidence in herself as to the future, for we find that, on June 26, an interesting ceremony was performed by the Mayor, in the planting of the first tree in connection with the scheme formulated by the Council for ornamenting the principal streets and reserves with evergreen trees.

During the year 1888 the Broken Hill Proprietary Company have treated 96,573 tons of ore, from which bullion has been derived representing upwards of 16,425 tons of lead, and 4,020,370 ounces of silver, or a money value, broadly speaking, of £900,664, an excellent output for a single mine.

The British Broken Hill has been systematically developed, and now presents a most promising appearance. Large bodies of highly payable ore have been proved to exist, and it is only a matter of a few months when the smelters will be at work and the ore reduced to bullion.

Block 14 has also greatly improved of late, and there is little doubt that large bodies of payable ore are there ready to be worked at a profit. The North has gone ahead, and is now doing considerably more than paying expenses; the same may be said of the Junction; while the South mine has been proved to contain lodes of considerable size and richness.



"Block 14" in the early days.

As showing the importance of Broken Hill as a town, it is only necessary to note that it ranks the third highest place in the colony for the value of custom duties during the year. Sydney naturally comes first, then Newcastle, and thirdly this inland town, a place that four years ago was little more than a name. The total amount of revenue collected at Broken Hill Custom House for the year ending December 28, 1888, was £64,915 15s. 4d., while that collected at the Silverton Custom House for the year ending December 28, 1888, was £18,506 18s. 11d; grand total revenue, £83,422 14s. 3d.

The vital statistics of the town during this year was births, 291; deaths, 387; marriages, 137.

The following very interesting particulars in reference to the business transacted at the Broken Hill and Silverton post offices clearly show the rapid advance of Broken Hill and the decline of Silverton.

Particulars for year ending December 28, 1888.		Broken Hill	Silverton
		£	£
Total amount of Money Orders issued	in round figures	31,045	9,176
Total amount of Money Orders paid	" "	11,153	3,278
Total amount of Government Savings Bank Deposits	" "	21,966	2,017
Total amount of Government Savings Bank Withdrawals	" "	12,562	1,996
Total amount of Stamps sold	" "	5,320	1,684
Total Amount of Private Boxes	" "	147	81
Total amount of Commission on Money Orders	" "	466	134
Broken Hill Ordinary Letters, 550,000; Registered Letters, 9,850		£82,659	£18,336

Poor Silverton! She appears to have fallen upon evil days, and the glories of the pioneer town of the Barrier have faded. At the door of the silver boom can be laid the decadence of the prosperity of the district generally, and there is no doubt but that Silverton suffered far more from the reaction than Broken Hill; yet there are many mines in the neighbourhood of the parent town which are good in themselves, any may be made to yield a profit, were it not for the apathy of the directors and the faint-heartedness of shareholders.

For the past two or three years there had been a gradual exodus from Silverton to Broken Hill, where miners could always obtain constant work. House after house had been "jinkered" over the rough road and dumped down



on the "Hill." Still Silverton had faith in herself, for in August, 1889, the foundation stone of the new municipal buildings and free public library was laid with all ceremony.

Despite the fact that Broken Hill at that time was by far the larger and more prosperous town (for in February, 1889, the population had reached 10,189 for the Hill only), it was Silverton who first achieved the distinction of laying the foundation stone of a town hall and public library. But Silverton gradually declined—hoping against hope—till, 10 years later (1899), the crisis came. Silverton had been abandoned, all the houses had been "jinkered" over to the Hill, and the furniture and effects of the Council Chamber were sold by public auction—the "last straw to break the camel's back."

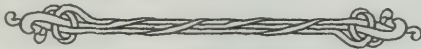
Alas! poor Silverton—once the hub of the mining district—the capital of the Barrier silver fields—to think you would come to this!



McCulloch's Shaft looking North, and Proprietary Company's Dams in Background, 1887.

The year of 1888 will long be remembered as the year of the "Great Fire," which took place in Argent Street on August 8, when over £70,000 of property was destroyed, followed by a severe drought.

The following is an exact copy of an advertisement appearing in the "Silver Age" on September 22, 1888. At this time there was a great shortage of water, and as the Government owned a large tank, known as "Rathole," some distance from Silverton, an application was made to the Minister of Mines, Frances Abigail, M.L.A., for permission to use the water, and thus avert a water famine—but was blankly refused. This refusal in such an urgent and important matter created great indignation amongst the people, with the result that Abigail was burnt in effigy. A dummy was made to represent the Minister—a coffin and hearse borrowed, and a procession held, to which enormous



The Burning of Francis Abigail in Effigy, 1887, on the site where the Post-Office now stands.

## WATER FAMINE.

**FRANCIS ABIGAIL, M.L.A.**

(Minister of Mines)

**WILL BE BURNED IN EFFIGY  
THIS EVENING,**

on the "Government" Reserve,  
at 8 o'clock.

**For Criminal and Cruel  
Neglect of the Inhabitants  
of this Town.**

All are invited to attend the  
"Auto Da FÈ."

**PARKES WE DECLINE TO  
NOTICE.**

crowds gathered to watch the effigy being hung on the gallows and burnt. Very soon afterwards, by proclamation, the tank was thrown open for public use.

Broken Hill was proclaimed a municipality on September 24 of this year, and on October 17 the Broken Hill Proprietary paid their 25th dividend of £2 per share.

## *A Few of the Mines that were Floated on the Barrier Field in the early days.*

COMPANY.	No. of Shares.	Each. £ s. d.	Paid on Cap. £ s. d.	COMPANY.	No. of Shares	Each. £ s. d.	Paid on Cap. £ s. d.
Brit. and Scotia	12,000	1 0 0	1 0 0	Rockwell (Melb.)	48,000	3 0 0	3 0 0
Christmas	48,000	1 0 0	19 0½	Silverdale	40,000	1 0 0	15 0
Copper Blow	40,000	1 0 0	1 0 0	Southern Cross	6,000	1 0 0	1 0 0
Cosgroves	90,000	5 0 0	5 0 0	Southern Cross	34,000	1 0 0	3 2
Central Blocks	75,000	1 0 0	15 6	South Extended	100,000	1 0 0	15 0
Barrier, Old	32,000	5 0 0	4 19 0	Sterling Hill	65,000	1 0 0	15 0
Barrier, New	32,000	5 0 0	4 10 0	Sunflower	10,000	1 0 0	1 0 0
Big Hill Pro.	50,000	1 0 0	15 0	Sunny Corner	64,000	1 0 0	16 0
Big Hill Cont.	50,000	1 0 0	15 0	Syd. Rothwell	40,000	1 0 0	1 0 0
Big Hill Ext.	40,000	1 0 0	5 0	Terrible Dick	12,500	20 0 0	19 0 0
Big Hill West	40,000	1 0 0	5 0	Umberumberka Pr.	4,000	1 0 0	1 0 0
Eagle Hawk Pro.	20,000	10 0	10 0	Umberumberka Co.	16,000	1 0 0	6 0
Eagle Hawk Con.	30,000	10 0	2 6	Victoria Cross	100,000	1 0 0	15 3
Eveleens	140,000	1 0 0	1 0 0	War Dance	12,500	1 0 0	15 0
Gt. Gladstone Pro.	40,000	1 0 0	15 0	White Lead	100,000	1 0 0	15 0
Gt. Gladstone Con.	8,000	1 0 0	5 0				
Hidden Secret	50,000	10 0	2 6				
Lady Brassey	80,000	1 0 0	15 0				
Lady Beys Pro.	40,000	1 0 0	1 0 0				
Lady Beys Con.	20,000	1 0 0	10 9				
Lady Carrington	30,000	1 0 0	15 0				
Maiden Rothwell	100,000	1 0 0	15 0				
Mascotte Pro.	4,500	1 0 0	1 0 0				
Mascotte Con.	12,000	1 0 0	15 9				
Pioneer	100,000	1 0 0	15 0				
Potosi	60,000	1 0 0	15 0				
Bonanza	80,000	1 0 0	15 0				

### Tin Mines.

Barrier Bischoff Pr.	30,000	2 10 0	2 5 0
Barrier Bischoff Co.	10,000	2 10 0	1 10 0
Caloola	80,000	1 0 0	15 0
Caloola North	60,000	1 0 0	15 0
Cosmopolitan Pro.	30,000	1 0 0	15 0
Cosmopolitan Con.	30,000	1 0 0	12 6
Lady Don	30,000	1 0 0	15 0
Mount Euriowie	16,000	5 0 0	4 10 0
Ruby	60,000	1 0 0	15 0
Victory	30,000	2 10 0	2 5 0
Rising Sun	60,000	1 0 0	15 0

The total number of men employed at the Proprietary Mine at this time was 1,666.



Camel Team at De Baun's Hotel, Silverton, 1887.  
The most historic hostelry on the Barrier.

A meeting of the shareholders of the Broken Hill Proprietary Company was held in Melbourne on March 31, 1889, to consider a proposal emanating from the Directors, for the alteration of the constitution of the Company, to increase the number of shares from 16,000 to 160,000, by reducing the amount of such shares from £20 to £2 each, to be issued as paid up to 38s. per share, the proposal being carried by the necessary three-fourths majority of the shareholders.

A strike took place in November of this year, when 2,000 miners ceased work, but resumed same after a strike lasting eight days.

The leading Broken Hill mines reached their highest nominal value on January 18, 1890, viz., £23,259,000, and their lowest on September 6, £14,505,500, as the following tabulated form shows:—

## AGGREGATE NOMINAL VALUES IN 1890.

Name of Mine.	Jan. 11.	Highest. Jan. 18.	Lowest. Sept. 6.	Dec. 24.
	£	£	£	£
Proprietary	14,720,000	14,400,000	10,680,000	12,000,000
Central	1,800,000	1,856,000	712,000	1,106,250
British	1,440,000	1,620,000	540,000	1,102,500
Block 10	1,325,000	1,575,000	925,000	1,362,500
South	1,100,000	1,350,000	750,000	1,175,000
Block 14	1,000,000	975,000	500,000	687,500
Junction	830,000	800,000	175,000	350,000
North	291,000	300,000	99,000	150,000
Round Hill	192,000	208,000	54,000	82,000
Block 5	125,000	175,000	70,000	106,250
Total	£22,723,000	23,259,000	14,505,000	18,032,000

These figures show a difference of nearly nine millions. It is difficult, almost impossible, for any person who has not visited Broken Hill to obtain the faintest idea of the extent and superficial worth of the main line; and it is equally difficult for those persons who do the whole of their mining on the "corner" to help being swayed by every rumour and controlled by every report—fair or false, true or bogus—else the shares in the main line would never have receded in nine months, January to September, nearly nine millions of money.

This enormous fall means that those who bought lost to that amount. The absurd drops were to all mines alike—no property, no matter how solid and progressive, escaped riot in prices. The fall in the Proprietary stock in September is perhaps the most significant proof we can have of public folly. The dividends paid by this mine, as the writer has shown all along, have been steady as a rock, and the statistical returns given from time to time, prove the wonderful advancement of the mine; yet, for no reason whatever, save a foolish panic, caused by a three weeks' strike, the nominal value of this great mine went down nearly four million pounds, notwithstanding the fact of the mine's dividends paying a good and certain interest to those who invested their money.



Another View of the Proprietary, showing Rasp's—McCulloch's—and Brisbane Blocks' Shafts, 1887.

The fall in the Centrals appears startling, for, on glancing at the table, we find that this stock fell during the nine months over one million pounds—the British had a fall of £900,000; Block 14 dropped half a million; the Junction over £600,000, and the Round Hill a sum representing nearly twice its present nominal value.

To make the position more ludicrous, it is only necessary to give the Company's figures to date:—The net amount received from the produce of the Proprietary Company's mine in six years totals £7,059,175; the dividends and cash bonus for the same period aggregate £3,320,000. Comparing this with the **Great Mount Morgan Gold Mine**, Queensland, we find that, during the same period, the gold extracted amounted to £3,922,627, or only a trifle over the "dividends and cash bonus" paid by the Proprietary Company to their shareholders.

Another very interesting statement might be made here. At the time when the Broken Hill Tramway was mooted (October, 1886, in opposition to the Silverton Tramway Company, and which was surveyed by Mr. E. H. Dawson), the prospectus set out a number of reasons, proving the advisability of at once building the line in question, and to make the matter appear of greater weight and importance, the market value of the principal mines was



# THE BROKEN HILL PROPRIETARY COMPANY.

COMPARATIVE STATEMENT, SHOWING HALF-YEARLY GROSS VALUES AND AVERAGE RETURNS, DISBURSEMENTS OF PROFITS, LESS BALANCES AND STOCKS IN HAND, SINCE THE FORMATION OF THE COMPANY.

HALF-YEAR ENDING	ORE TREATED	SILVER PRO- DUCED.	LEAD PRO- DUCED.	TOTAL GROSS VALUE. Net returns received in London.	Value per Ton of Ore Treated	TOTAL EXPENSES INCLUDING DEPRECI- ATION.	Average Cost per Ton of Ore Treated	Profit per Ton of Ore Treated	DIVI- DENDS PAID.	CONSTRUCTION
Tons	C Q Lb	Ounces	Tons C Q L	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£	£ s. d.
Nov. 30, 1885		35,605		7,442 12 11		4,044 10 8				2,582 15 11
May 31, 1886		144,604		37,953 5 2		24,199 3 8				18,737 8 8
Nov. 30, 1886		871,665		157,215 9 0	15 2	70,345 10 6	15 4 8	1 48,000		10,612 9 5
May 31, 1887		835,526	1,990 17 3	204,559 0 7	11 2	121,321 2 2	12 5 4	9 9	80,000	14,611 16 4
Nov. 30, 1887		1,267,699	6,511 13 11	284,704 15 6	9 19	167,303 10 1	16 4 4	3 3	96,000	27,416 6 11
May 31, 1888		1,633,731	6,773 19 2	373,034 16 4	9 7	179,799 4 10	10 5 4	17 1	152,000	40,087 13 2
Nov. 30, 1888		2,290,455	9,885 10 2	512,637 1 10	8 8	237,968 4 14	7 5 1	0 192,000		26,267 4 6
Totals	151,733 5 0	17,079,291	27,990 9 0	1,579,377 1 4		803,381 15 2			568,000	140,345 14 11

## STATEMENT OF AMOUNT EXPENDED IN CONSTRUCTION SINCE THE FORMATION OF THE COMPANY.

CONSTRUCTION	November 30th, 1885.	May 31st, 1886	November 30th, 1886.	May 31st, 1887.	November 30th, 1887.	May 31st, 1888.	November 30th, 1888.	Gross Total.	Total Deprecia- tion	Net Total of Con- struction
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Mine Plant and Machinery	2197 17 11	4946 5 3	1506 9 0	5566 7 3	15593 17 9	18555 13 1	8514 13 4	50180 3 7	12220 16 8	37966 6 11
Smelting Plant	384 18 0	10692 3 5	6847 1 0	1001 1 0	15883 17 9	9632 7 7	8084 0 5	62415 13 3	10854 4 10	45561 8 5
Concentration Plant, Broken Hill						15233 2 9	2403 10 0	17636 12 9		17636 12 9
Refinery Plant, Port Pirie							36 15 6	36 15 6		36 15 6
Lands and Buildings							21294 6 6	28162 4 4	5593 4 0	22567 0 4
Tanks							338 19 2	2823 4 6		2823 4 6
Railway Sidings and Connections							2730 15 4	9522 15 8		9522 15 8
Wharf at Port Pirie							389 16 4	874 6 4		874 6 4
Working Plant, Port Pirie							109 12 2	109 12 2		109 12 2
Coke Bins, Port Pirie							2636 6 8	2636 6 8		2636 6 8
Office Furniture							417 5 6	611 5 8		611 5 8
Gross Total	2582 15 11	18737 8 8	10612 9 5	19701 18 2	35361 10 6	19964 6 10	38055 10 11	175016 0 5	534670 5 6	140345 14 11
Amount written off for depreciation at the rate of 10 per cent.				5060 1 10	7945 3 7	9876 13 8	811788 6 5	34670 5 6		6140345 14 11
Net Total	2582 15 11	18737 8 8	10612 9 5	14641 16 4	27416 6 11	98087 13 2	226267 4 6	140345 14 11		6140345 14 11

given, which proves very interesting reading compared with their values at the present date. The prospectus states: "Below is given the market value of some of the most important mines, besides which there are many not upon the market, the exact value of which cannot therefore be obtained:—



Donkey Team and Blacks arriving at Broken Hill from Silverton  
with a Load of Merchandise (1887).

Broken Hill Proprietary .. ..	£3,040,000
Broken Hill Block 14 .. ..	850,000
Broken Hill South .. ..	80,000
Broken Hill North .. ..	54,000
Broken Hill Junction .. ..	150,000
Broken Hill Extended .. ..	5,000
Broken Hill Central .. ..	66,000
Big Hill .. ..	11,250
Pinnacles .. ..	169,250
Round Hill .. ..	56,000
Gipsy Girl .. ..	12,800
Pioneer .. ..	50,000
Lady Brassey .. ..	16,000
Rising Sun .. ..	40,000
South Broken Hill Extended .. ..	20,000
Victoria Cross .. ..	32,000
Imperial .. ..	21,000
Cosgrove's Dream .. ..	50,000
<b>Total .. ..</b>	<b>£4,723,525</b>

Four millions was then considered the top market value of all the mines on the Barrier silver field (1886). Twenty years later we find that the Proprietary Company have paid their shareholders nearly twelve million pounds sterling in dividends alone, or, taking the production, this **one** mine has produced minerals, from the inception of the Company to May, 1907, of over thirty million pounds sterling.

In the foregoing pages the writer has given the history of the Barrier silver field, from its earliest date to the close of the year 1890—showing the discovery—the rapid rise and progress of the "Broken Hill"—and the gradual but fatal decline of Silverton and district. It would be quite impossible, in a book of this size, to enter exhaustively into the history of the Barrier from that date to the present year (1907); therefore, after giving a résumé of the past, and furnishing the principal historical facts and dates for the seventeen years intervening, the mines of the present day will be treated seriatim.

Before 1883 the "Broken Hill" was a desert thickly timbered with mulga, and known only to the kangaroo and wallaby, who housed themselves in the natural caverns, or amongst the huge rocks scattered all along the hill. History tells us that one Chas. Rasp, in wandering over this hill, was so struck with its appearance and formation as to induce him to peg off Block 12, and, in company with his friends, secured 3 leases (13, 14 and 15). These comprised the middle and northern end of the now Broken Hill Proprietary mine, Block 14, and portion of the British. Blocks 10 and 11 were next taken up, and subsequently Block 16. Thus nearly two miles in length of one of the richest silver-bearing lodes in the world were secured for mining purposes, and the future prosperity of Broken Hill assured. On page 17 a view shows the spot where the first men on the mine camped. A little to the right of this tent was a small shanty occupied by a man named Samuel Sleep and his son, formerly a well-sinker on Mount Gipps Station, but now working boss under Jamieson. Early in 1885 there were 18 men working on the mine, and, by the fortnightly time-sheet (which was entered in a small penny memorandum book), the writer finds that seven of the men were paid at the rate of 8s. 4d., and eleven at 10s. per day, Mr. Alf. Orman riding over to Silverton to obtain the money from the bank.

In the early months of 1886 the inhabitants deemed it advisable that streets should be laid out in something like regular order, but when the preliminary survey for a town was made and completed on April 11, 1886, it was found that there were only 34



Umberumberka Creek in Flood, 1885.

# THE SHARE MARKET.

1885.

1886.

Company.	Number of Shares	Paid up or Cap.	Sept. 5th	Oct. 3rd	Nov. 4th	Dec. 2nd	Jan. 6th	Feb. 3rd	Mar. 3rd	April 3rd	May 1st	June 2nd	July 3rd	Aug. 4th	Sept. 1st	Oct. 2nd	Nov. 3rd	Dec. 1st
Broken Hill	100000	20	0 19	0 18	0 15	0 13	0 14	0 12	0 10	0 08	0 07	0 06	0 05	0 04	0 03	0 02	0 01	0 00
B. H. South	100000	1	0 10	0 11	0 12	0 13	0 14	0 15	0 16	0 17	0 18	0 19	0 20	0 21	0 22	0 23	0 24	0 25
B. H. North	100000	1	0 10	0 11	0 12	0 13	0 14	0 15	0 16	0 17	0 18	0 19	0 20	0 21	0 22	0 23	0 24	0 25
B. H. June	100000	1	0 10	0 11	0 12	0 13	0 14	0 15	0 16	0 17	0 18	0 19	0 20	0 21	0 22	0 23	0 24	0 25
Day Dream	100000	1	0 10	0 11	0 12	0 13	0 14	0 15	0 16	0 17	0 18	0 19	0 20	0 21	0 22	0 23	0 24	0 25
Pinnacles G	350,100	100	0 16	0 18	0 20	0 22	0 24	0 26	0 28	0 30	0 32	0 34	0 36	0 38	0 40	0 42	0 44	0 46
Round Hill	1200	1	0 05	0 06	0 07	0 08	0 09	0 10	0 11	0 12	0 13	0 14	0 15	0 16	0 17	0 18	0 19	0 20
Round Hill	10000	20	0 19	0 18	0 17	0 16	0 15	0 14	0 13	0 12	0 11	0 10	0 09	0 08	0 07	0 06	0 05	0 04
Umbra	10000	1	0 05	0 06	0 07	0 08	0 09	0 10	0 11	0 12	0 13	0 14	0 15	0 16	0 17	0 18	0 19	0 20

1887.

Company.	Number Shares	Each.	Paid up	Jan. 8th	Feb. 2nd	Mar. 2nd	April 2nd	May 4th	June 1st	July 2nd	Aug 3rd	Sept. 3rd	Oct. 1st	Nov. 2nd	Dec. 3rd
Broken Hill	100000	20	0 19	0 18	0 17	0 16	0 15	0 14	0 13	0 12	0 11	0 10	0 09	0 08	0 07
B. H. South	100000	1	0 10	0 11	0 12	0 13	0 14	0 15	0 16	0 17	0 18	0 19	0 20	0 21	0 22
B. H. North	100000	1	0 10	0 11	0 12	0 13	0 14	0 15	0 16	0 17	0 18	0 19	0 20	0 21	0 22
B. H. June	100000	1	0 10	0 11	0 12	0 13	0 14	0 15	0 16	0 17	0 18	0 19	0 20	0 21	0 22
Day Dream	100000	1	0 10	0 11	0 12	0 13	0 14	0 15	0 16	0 17	0 18	0 19	0 20	0 21	0 22
Pinnacles G	350,100	100	0 16	0 18	0 20	0 22	0 24	0 26	0 28	0 30	0 32	0 34	0 36	0 38	0 40
Round Hill	1200	1	0 05	0 06	0 07	0 08	0 09	0 10	0 11	0 12	0 13	0 14	0 15	0 16	0 17
Round Hill	10000	20	0 19	0 18	0 17	0 16	0 15	0 14	0 13	0 12	0 11	0 10	0 09	0 08	0 07
Umbra	10000	1	0 05	0 06	0 07	0 08	0 09	0 10	0 11	0 12	0 13	0 14	0 15	0 16	0 17

1888.

Company.	Number of Shares	Each.	Paid up	Jan. 4th	Feb. 1st	Mar. 12th	April 10th	May 8th	June 1st	July 4th	Aug. 1st	Sept. 1st
Broken Hill	100000	20	0 19	0 18	0 17	0 16	0 15	0 14	0 13	0 12	0 11	0 10
B. H. South	100000	1	0 10	0 11	0 12	0 13	0 14	0 15	0 16	0 17	0 18	0 19
B. H. North	100000	1	0 10	0 11	0 12	0 13	0 14	0 15	0 16	0 17	0 18	0 19
B. H. June	100000	1	0 10	0 11	0 12	0 13	0 14	0 15	0 16	0 17	0 18	0 19
Day Dream	100000	1	0 10	0 11	0 12	0 13	0 14	0 15	0 16	0 17	0 18	0 19
Pinnacles G	350,100	100	0 16	0 18	0 20	0 22	0 24	0 26	0 28	0 30	0 32	0 34
Round Hill	1200	1	0 05	0 06	0 07	0 08	0 09	0 10	0 11	0 12	0 13	0 14
Round Hill	10000	20	0 19	0 18	0 17	0 16	0 15	0 14	0 13	0 12	0 11	0 10
Umbra	10000	1	0 05	0 06	0 07	0 08	0 09	0 10	0 11	0 12	0 13	0 14



inhabitants, besides a few scattered tents. Previously to this, viz., on August 10, 1885, the area had been proclaimed a township reserve, and on October 3 of the same year, in consequence of great confusion which had arisen through the sale of some allotments by a Mr. Mullens, the owner of a mineral lease which covered the area where the most important part of the town now stands, the Government made another proclamation that barred any more land being held by virtue of business license or miner's right. This monstrous disability existed until September 23, 1887, during which time no one cared to improve their holdings more than was absolutely necessary for carrying on their business, and, in consequence, an uncertainty as to the tenure of the land existed, that not only hindered legitimate trade, but also gave rise to serious strife and discord between parties who set up rival claims to the same allotment, regardless of prior occupancy by others. However, in July, 1886, an influx of population set in, owing to the closing of the Day Dream smelters, and the fact that the demand for miners and smelters was constantly increasing at the Broken Hill mine. From April, 1886, to November, 1888, the administration of public affairs in Broken Hill was in the hands of a Progress Committee, who strove against great difficulties in the endeavour to bring the requirements of the town and district under the notice of an unsympathetic Government. In these early days it was a difficult matter to make those who had the administration of public affairs in their hands, in Sydney, understand that such a place as the town of Broken Hill existed.

Petition after petition was sent asking for the cancellation of the reserve over the town lands, and again and again were promises made that the wishes of the community would be complied with, but it was not until after the visit of the Minister of Mines (Mr. Abigail) and the Minister of Justice (Mr. Clark), in August, 1887, that the reasonable request was at last granted and acted upon. The "Towns' Police Act" was extended to Broken Hill on March 8, 1887, and in 1888 the town was proclaimed a municipality, while the Council gradually commenced to arrange matters into a systematic way of working, and improve the surroundings in every way possible.

Those who lived on the Barrier during 1888 were called upon to face bitter hard times. The severe drought which visited New South Wales proved exceedingly heavy on the Western district. Not only did it decimate the flocks and herds of the pastoralists, but greatly hindered the development of the vast mineral wealth that lies in the deep places under the earth. One by



General View looking down the line of lode, showing teams bringing Coke from Terowie, 1887.

one the smaller mines, only a few miles distant from Broken Hill, had to reduce the number of men employed, and subsequently many properties were compelled to altogether suspend operations and close the mine, for the only reason that water was unobtainable for the men. Not less fatal in its effect was the gambling fever introduced by the boom in silver shares. A boom is nothing more than an unhealthy inflation of values, and Broken Hill and the district long felt the effects, although the disease itself soon passed away. A few—a fortunate few—made money, but the greater number of people who speculated recklessly suffered severely.

In company with the drought and the evils arising from over-speculation, the people had to contend against the awful effects produced by the presence of typhoid fever (for detailed particulars see "Hospital" in another portion of this book), the disease being mainly brought about by the carelessness and ignorance of the residents themselves, but the effects were disastrous, and many a valuable life was lost.

And as though these three evils were not sufficient for ordinary human nature to contend with, a terrible fire in November destroyed from £70,000 to £80,000 worth of property in the centre of the town. This was the dark side of 1888, but fortunately the other side was brighter; the mining industry had gone ahead by leaps and bounds—the population had rapidly increased—and Broken Hill was known to the wide world as the great silver mining centre, that provided one-third of the whole annual output of the world, although barely five years old.

In 1890 Broken Hill was one of the most prosperous towns in the State, and, owing to the extraordinary developments at the mines, the growth of the place had become so rapid that the population had increased from 10 to 15 per cent. in twelve months; the trade on the Hill had likewise assumed immense proportions. The make-shift houses and shops had given place to stone and brick buildings, the improvements made during the last two years in Argent Street alone representing hundreds of thousands pounds sterling—building was still in full swing—the demand for shop and office accommodation was greater than the supply—dwelling houses could not be built fast enough to supply the wants of the continual increase of population—the main streets, from being rough designs, were now levelled, kerbed, guttered, and well provided with asphalted footpaths—the sanitary arrangements of the town had also received a great deal of attention—and everything and everybody seemed to be running on all-fours towards prosperity. The mines had erected the most modern and perfect machinery of its kind to assist in working and extracting the valuable metal from the crude ore—men, second to none in the ability to successfully develop the vast resources of the mines, had been engaged—and probably nowhere else throughout the wide world could there be found in one spot, at that time, such a profusion of wealth as was known to exist in that great natural treasure vault, the Proprietary mine, alive with human burrowers, who earned a legitimate livelihood by extracting from the earth that valuable metal which repaid the outlay of investors, and from year to year increased substantially the wealth of the world at large.

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## *HISTORICAL EVENTS.*

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- 1891.** One of the largest pieces of native silver ever found was got at The Consols Mine, weighing 16 cwt., and valued considerably over £3,000 (May 25).  
Population had increased to about 26,000.
- 1892.** Known as the year of disaster, and ushered in with a water famine, 27,000 to 50,000 gallons of water arriving daily from Adelaide (January).  
Another big fire in Argent Street, extending into Oxide Street (February).  
The third strike began (July 3), more commonly known and spoken of as the "92 Strike."  
Arrest and imprisonment of seven of the strike leaders (September 15).  
The strike ended (November 6).
- 1893.** Known as the "bad" year. Bank failures, silver crisis.
- 1895.** Demonstrated for the first time that average-grade sulphides can be made to yield a good profit.  
Terrible accident at South Mine, nine men being killed and many wounded (July 18).  
Fire in Block 11 of the Broken Hill Proprietary (July 21), which burnt for years, and cost the Company nearly £30,000.
- 1896.** More companies in the dividend list than any year previous.
- 1897.** Steady progress, both as regards mine and metallurgical developments.  
Outbreak of fire in Block 12 of the Proprietary Company (September 12), three men losing their lives in being overcome by the fumes in their endeavour to reach the seat of fire.  
The collapse of the Junction stopes.
- 1900.** Considerable fall in the value of spelter, interfering with the zinc-extraction experiments.  
Development of ore bodies satisfactory, without being phenomenal. Value of ore at the deep prospecting levels assures future prosperity.
- 1901.** The price of stocks show a collapse, owing to the fall in prices of silver, lead, spelter and copper.
- 1902.** Silver market still depressed. Lead shows a substantial recovery, while the zinc (spelter) market remains firm.
- 1903.** Recovering from the terrible drought, only five mines being in work.
- 1904.** Prosperity on all sides. Five mines declared dividends, involving the distribution of over £500,000.  
New appliances and processes brought into operation.  
Value of staple minerals improved.  
According to share values, the mines have improved in worth by nearly £2,000,000.
- 1905.** Mining industry still prosperous.  
Value of all minerals and metals are both high and on the up-grade.
- 1906.** Prosperity continues, employment abundant, wages higher, investments giving better returns. A bright, cheerful outlook!



# THE BROKEN HILL PROPRIETARY COMPANY, LIMITED,

BARRIER RANGES, NEW SOUTH WALES.

CAPITAL: £384,000, IN 960,000 SHARES OF 8s. EACH, FULLY PAID UP.

## DIRECTORS:

JOHN DARLING, Chairman.

WILLIAM JAMIESON  
BOWES KELLY  
HON. WM. KNOX, M.H.R.

HON. D. E. McBRYDE, M.L.C.  
HON. H. C. E. MUECKE, M.L.C.  
D. W. HARVEY PATTERSON

Secretary: F. M. DICKENSON.

General Manager: G. D. DELPRAT.

## Officers at Broken Hill:

Manager B. H. Works . . . E. J. Horwood  
Gen. Manager's Secretary . . F. M. Mitchell  
Accountant . . . . . J. Bristowe  
Underground Manager . . . A. A. Boyd

Chief Engineer . . . . . J. A. Lindsay  
O.D.M. Superintendent . . . C. G. Hylton  
Chief Metallurgist . . . . . L. Bradford  
Chief Assayer and Asst. Metallurgist  
C. T. Henderson

**SILVER.** Silver was known to occur in New South Wales as far back as the year 1839, but the first attempt to work it commercially was made at Moruya in 1864. The attempt, however was a failure, owing to the complex nature of the ore.

**THE DISCOVERY.** Several more or less important silver fields were discovered subsequently, Thackaringa, &c., amongst them; but it was not until 1883 that the marvellous Broken Hill lode, which completely overshadowed all other mines in this country, or perhaps in the world, was opened.



This view was taken in 1905 from the brace of Stewart's Shaft, looking N.E. and S.W.

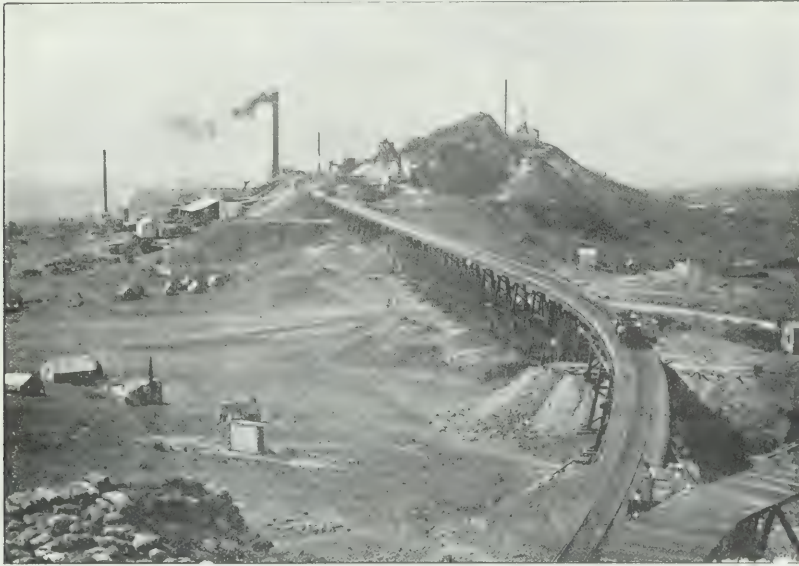
The history of the Broken Hill lode serves to show how easily fortunes can sometimes be made in mines, by persons who possess no knowledge of mining, and it will not be out of place here to again repeat the "old, old" story.

The mine was "pegged out," and a mineral lease applied for by a local resident named Charles Rasp, who was totally without knowledge or experience of mineral deposits, and who was induced to take it up because he imagined the outcrop to consist of tin ore. Mr. Rasp was a boundary rider on the Mount Gipps pastoral holding, and when he returned to the station at night he informed Mr. McCulloch, the manager, and other employees what



he had done, when it was decided that a syndicate should be formed by seven of them, each person contributing the sum of £70. There were fourteen shares in the syndicate, and within six years from the opening of the silver mine

the market value of each of these shares, with dividends and bonuses added, was about £1,250,000. Up to the end of December, 1905, the property originally acquired by Rasp and his partners has paid over eleven million pounds sterling in dividends, and the prospects of the mines were never better than they are to-day.



Proprietary Mine Viaduct, 1889.

The Company employ 4,850 men, distributed as follows: Broken Hill (surface), 1,610; Broken Hill (underground), 1,740; Knob Tramway, 70; Coke Limestone Quarries, Point Turton, 60; total, 4,850.

**WAGES.** The Company's fortnightly pay amounts to £26,200—for wages only. The **uniform wages** on the Hill are: Miners on wages receive 10s. per shift (8 hours); miners on contract receive 12s. to 14s. per day; truckmen on wages receive 8s. 7½d. per shift (8 hours); truckmen on contract receive 10s. 1½d. per day. Fitters, turners, carpenters, masons, tinsmiths, blacksmiths, mechanics, &c., receive 11s. 6d. per shift (8 hours). **Foremen:** £4 to £6 and upwards per week.

**SHIFTS.** The week is divided into shifts of eight hours each, thus: First shift (night shift) commences midnight Sunday to 8 a.m., with 20 minutes' "crib" at 4 a.m.; second shift (day shift) commences at 8 a.m. to 4 p.m., with 20 minutes' "crib" at 12 noon; third shift (afternoon shift) commences at 4 p.m. to midnight, with 20 minutes' "crib" at 8 p.m.

For underground, the shift goes on at midnight Sunday for the first week, knocking off at 8 a.m. Saturday morning (6 days), this shift being known to the miner as "the curse of God shift." For the second week the shift goes on at 4 p.m. Monday, and knocks off at midnight on Saturday, better known as "the long shift off." For the third week the shift goes on at 8 a.m. Monday morning, and knocks off at 4 p.m. Saturday afternoon, better known as "the respectable shift." Sunday work (if any) is paid as time and a quater, the work being principally for repairs, &c. The time is given in by each one when knocking off at midnight on Saturday. This is necessary, as it proves that no one is missing, and that all is well in the mine.

The men going on "shift" first report themselves at the candle house, where their time is taken, and each being provided with sufficient candles to last the shift, they descend the shaft to whatever level they may require to work.

The cage holds 18 at a time, and descends with lightning rapidity, making the drop of 1,000 feet in 30 seconds. To a person descending the first time it is sensational, from the fact that things appear to be entirely opposite to what they are. Thus, after the cage has descended some 50 to 100 feet, one feels a sudden change—in a moment of time the cage appears to be rising at an unearthly speed, and must soon dash against the top with terrific force, and you are somewhat surprised when at last it does stop, and the door opens, to find you can walk out on the 1,000 feet level. In ascending, the sensation is similar. After rising some 50 to 100 feet, the sudden change is experienced, and you feel you are being madly hurled downwards into the bottomless pit, only to find yourself after 30 seconds safely landed on the surface. The time-keeper usually goes below twice during each shift, to prove that all hands who reported themselves are at work in their proper places

**HORSES.** There are about 150 horses employed underground. These work in "shifts" with the men, and, like the men, enjoy their 20 minutes' "crib," which, by the forethought of the Company, is provided in the shape of a nose-bag.

It is interesting to watch the "shift" go below. The instant the cage touches the surface level, the horse backs into it without any trouble whatever, a door fastens the animal in, a bell rings, and down goes the cage at lightning speed 1,000 feet, or to whatever level it is required. As the animal steps out of the cage at the bottom, another horse backs into the other cage at the surface level, and so well do they know their duty that not a moment of time is lost (it takes 40 minutes to send down 23 horses). The horses (and fine, upstanding animals they are too) are brought up to the surface every day at the termination of their work, and by this means are kept healthy.

**CHANGING ROOMS.** The Company have lately erected three new changing houses, built of stone, proving a source of great comfort and convenience to the men. Each room will accommodate over 500 men, and is provided with hot and cold water plunge and shower baths, with washing basins all round the room. The men coming up from underground, after the termination of their work, are able to obtain a bath and change their things, their wet and dirty clothes are placed on specially constructed hooks, and by means of a pulley hoisted to the ceiling—each rope having a copper disc attached, with the man's number. Hot air is then passed into the room from the floor, and the clothes are thoroughly dried by the time the men return to their next shift. The view of one of these changing rooms is shown on page 37.

**FIRE BRIGADE.** The mine has established a fire brigade of its own, and those who have seen the brigade called out are impressed with the excellent system and efficiency of the staff. The rapidity with which these men get to the indicated seat of the fire is really surprising. A bell sounds, and in less time than can be imagined men will be seen, like ants, all over the place: there is no confusion, every man knowing his position. The members of the brigade are equipped with smoke jackets and helmets, and are sufficiently able to cope with any fire.

**OUTBREAK OF FIRE.** The difficulties attending an outbreak of fire underground are scarcely realised by the ordinary individual. A fire on the surface and a fire underground are two very different things. In the first instance there is a free vent for the poisonous gases, and therefore the fire-fighters can approach the seat of the outbreak and take the necessary steps towards its extinction promptly; but underground, in the extensively-timbered Broken Hill mines, with their miles of workings, a fire is a very different matter. If it is not promptly extinguished before it obtains a firm hold, the highly poisonous gases given off from combustion, being necessarily confined to the workings, make the approach of men to the vicinity of the trouble impossible under ordinary conditions.

In most of the Broken Hill mines fire buckets and hoses are provided throughout the entire length of the different levels, so that nothing may be wanting to enable any outbreak to be promptly extinguished by the men on the spot.

Should the fire obtain a firm hold, however, the first and essential step is to provide a supply of fresh air as near to the seat of the fire as possible, to enable the fire-fighters to approach sufficiently close to play water upon it. It is, therefore, necessary to secure a constant and unchanging current of air in one direction.

This current of air, as in the case in the recent fire in the Proprietary mine (1906), is readily ensured when the mine is equipped with a main ventilating fan, which can be reversed at will, thus enabling either side of the fire to be approached as may be desired, and water played upon it. This current of air is guided to its destination by bratticing off all openings leading off the direct connection between the fan and the seat of the trouble. The bratticing is done with canvas and light timber. In the absence of a fan, the current of air



This view was taken from the top of the North Smelting Stack (looking S.W.) by Mr. Schlapp, who was hoisted up for the purpose. On the left is Patterson's Shaft, showing tramway from Holly's Mill, Block 10 laying in the background. In the centre is the South Smelting Stack, while on the right is the Area of Dump, with the Timekeeper's (Brittain's) Office in the middle.

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can be obtained either by a shower of water falling down the shaft, thus forcing in air towards the fire, or by a steam jet placed at the bottom of the shaft and directed upwards, thus drawing air towards the shaft and forcing it upwards. When the shower of water is used, the shaft, of course, is made into a down-cast, and forces fresh air into one side of the fire, displacing the poisonous gases of combustion.

In the case of the steam jet, the shaft is made into an up-cast, and acts as a chimney, carrying off the poisonous gases and smoke from the fire, whilst fresh air naturally displaces these gases. These latter means of obtaining this air current, however, are far less satisfactory than the use of a fan.

If the mine has two shafts available, one can be used as a down-cast and the other as an up-cast; but if one shaft only, it is necessary to sub-divide it into two compartments by bratticing, one compartment being used for the passage of fresh air down and the other for the exit of smoke and gas.

With the air current fully established, and one side of the fire freed from the poisonous gases and smoke, the men can then enter with hoses, and as much water as possible is poured on to the fire. Should there be a level above, water is also allowed to soak through such parts as would be likely to reach the affected area below, which, whilst helping the hoses below, checks the fire's upward progress.

Should the timbering of the connecting drive burn out and collapse, and thus cut off access to the affected area (and this stage is soon reached in these outbreaks), further attempts to extinguish the fire must be abandoned, and all efforts are then concentrated towards confining the fire to as small an area as possible.

In the case of the fires in the Proprietary Mine, it early became apparent that all that could be done was to isolate the affected area. With this end in view,



One of the Changing Houses to accommodate 500 men, showing the method of hoisting the wet clothes to the roof, to be dried by the hot-air process.

all avenues connecting with the fire were closed in order to cut off air supplies. This was done in the first instance with canvas stretched across the galleries, and later with more substantial barriers built of brick, or with bags of tailings plastered over with gypsum (plaster of Paris) to make them air-tight. Beyond these barriers, water curtains were established. These curtains are made by selecting as narrow a spot in the workings as possible, and thoroughly saturating with water a certain length of ground from wall to wall of the lode on each side of the fire. The whole of the stopes below are in this manner kept constantly wet from above, and, in order to ensure that there is no dry timber in these curtains through which the fire may make its way, exploratory cross-cuts are put into them; should any dry portions be discovered, additional quantities of water are directed towards the spot.

The cutting of these exploratory cross-cuts is expensive work, and the water required for keeping the curtains constantly saturated means also considerable outlay, but then, the whole operations of successfully fighting fire underground is necessarily attended by heavy expenditure.

In some cases where the lode narrows close to the fire, and the timbering is therefore not too extensive, it is possible to present a barrier by removing a section of the timber, and replacing it with filling impervious to fire; whilst at other places, which may be inaccessible for men, tailings are carried down with water. By the means above described, the fire is restricted, cut off from air supply as much as possible, and slowly smoulders itself out. This smouldering process, however, has been known to take several years. In the meantime the workings outside the area are kept free from any of the poisonous gases or smoke which may escape, by means of ventilating fans, which suck it out.

In the present system of working in the lower levels of the various mines, the timber is neither continuous nor open, and the risk of occurrence of fire in these stopes is very much less than in the upper levels, with their great network of timber.

**MANAGEMENT.**

The controlling of such an immense undertaking as the Proprietary mine requires the utmost knowledge and skill in its administration, the Directors having always secured the best available talent in all the numerous branches under their control. After Mr. Wm. Jamieson was the advent of Mr. W. H. Patton (from the Virginia Consolidated—Comstock—Mine), who started the “square set” system of timbering, a full description of which is given later. Next came Mr. S. R. Wilson, followed by Mr. John Howell,

in 1890, another American, who introduced the “open-cut” system.



View showing the Old Mill and Extension.

of lead and rich silver ores, occurring principally along the line of the 200 ft. level, and below it at regular intervals throughout the whole extent of the line, and which were required for smelting, could not possibly have been reached and mined out as required.”

The principal objects of the “open-cut” system were as follows: Cheapness—the recovery of mine timber that could be used again in deeper workings—the removal of the great pressure on the timbering in certain sections of the mine—the saving of large quantities of timber that would be otherwise required for extra support—the absolute certainty of obtaining all the ore in such portions of the lode near the surface—and that greater quantities of ore could be mined without the cost of extra shafts or expensive machinery. After Mr. Howell came Mr. Alex. Stewart (1894), from the Tharsis Mine, Spain; followed by the present manager, Mr. G. D. Delprat, who has been with the Company since 1898.

**“OVERHAND STOPING.”**

The method of stoping the ores adopted in the first instance was that known as “overhand” or back stoping. Mr. Provis, in the report afterwards referred to, described the method of mining then in vogue as follows:—“When commencing a stope, the vein is cut across from wall to wall for about 12 feet in height above the level. This will enable level sets of timber (allowing a space of 7 ft. x 7 ft. in the clear) to be placed in position on foot sills of stout durable timber. These sets are erected at intervals of a few feet, level with each other, and then covered with poles closely packed, and filled up with waste rock.

“The timbering is usually commenced from the footwall side, long experience having proved that this method is preferable with wide veins and walls that require constant support.

“When a sufficient length of timber has been attained, openings called ‘passes’ are left between the timbers to receive the ore, and from these passes it falls into the cars below. These passes are made every 40 feet.

“In this manner the whole of the ore is available between the levels, and the mine is kept secure by the timbers and waste rock.

“The timber now used is obtained from the River Darling, and gum and boxwood of large dimensions are mostly used. The cost of a ‘set’ of timber, including labor in cutting, is about £4 10s.”

With the advent of Mr. Patton, the “square set” system of timbering was introduced into the mine, and men accustomed to this system were specially imported from America to introduce it.

**SQUARE SET SYSTEM.**

The square set system of timbering introduced by Mr. Patton is not identical with that at present in use. It relied entirely on the timber for resisting the pressure from the surrounding country, and was supported when unduly strained by bulkheads and diagonal stays. The name “square set” practically describes the method. Each set being built in a square, it enables the timber to resist pressure from all directions. With the enormous lodes of Broken Hill this system, however, did



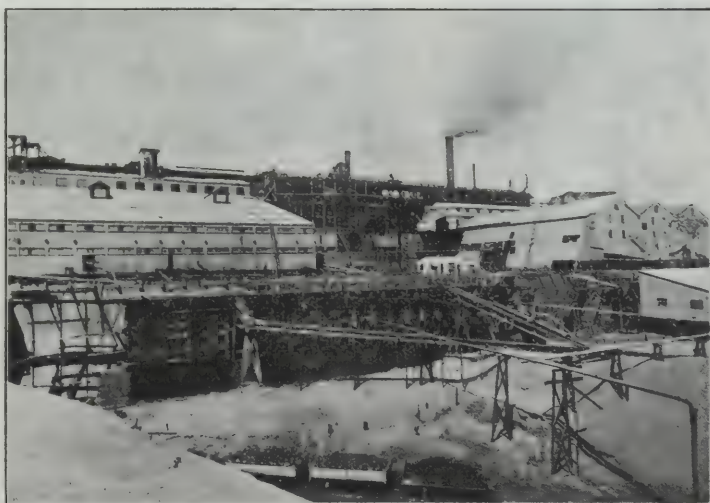
not prove satisfactory in all respects, and it has now been modified. Instead of the timber alone supporting the ground, the vacant spaces between these timbers are filled with waste material, which is sent down from the surface, only a main gangway being left open. This latter system is that at present in use in the upper levels of the mine where the ore is friable and difficult to work. In the lower levels, where the hard, compact sulphides are mined, there are two methods of working the ground according to its nature. These are known as the "bulkhead" system and the "cross-cut" system. Shortly described, they are:—

**BULKHEAD SYSTEM.** In the dense, compact sulphides the "open stope" or "bulkhead" system is used. This system is worked in the following way:—When opening a new level, a longitudinal drive following the footwall is put in, wide enough to admit of the subsequent placing of the drive timbers. Direct communication is made with the level above (both for the purpose of ventilation and the passing of necessary filling), by sinking from the upper level, or rising from the new level on the foot-wall side of the lode. When this connection is completed and the drive timbers built, stoping operations are commenced from a point alongside the winze connecting the two levels. The ore is broken down for a height of 13 ft. above the top of the drive timbers, and for a width which is determined by the nature of the ground being worked. This is the first stope worked, and corresponds to what is known as the "sill" stope. The face is carried along by breaking down the ore in two stages. The bottom 7 feet, by drilling from the sill floor; the upper 6 feet, by rigging the rock-drilling machine on a low bulk. Whenever the back shows an indication of requiring supporting, bulks are built up to the roof. These bulks are made of 6 ft. logs of 10 in. x 10 in. Oregon, laid horizontally in the form of a square, crossing each other at the ends. When the logs built in this manner reach the roof, the top is blocked and wedges are then driven home, finally tightening the whole erection.

Every 32 feet along the drive a chute and ladderway are placed (through the former the ore is run into the drive). These are made of a double square set, closely lagged all round outside with 10 in. x 2 in. Oregon, nailed horizontally to the square set legs, and the chute itself is lined with stringy-bark spiked vertically to the struts and caps.

When the whole of this is done, the first 8 feet of the excavated portion is filled up with mullock sent down from the surface. This filling consists of zinc plant tailings, which reach the level through chutes from the bottom of the open cut, and are trucked along temporary tram-lines to the position required. When 8 feet of the whole of the deleted area has been filled in this manner, another horizontal layer 8 feet high is taken off, starting from the same spot as in the first case, and thus the stoping is carried on, layer after layer, until a distance of 25 feet from the level above is reached.

When this point is reached, the horizontal stripping is discontinued, and a modification of the cross-cut system is adopted, thus:—At the winze previously referred to, a gallery is driven 7 ft. wide and 8 ft. high right across the lode from foot-wall to hanging wall. This gallery is timbered as described in the "cross-cut" system and filled completely. Two other similar galleries are then driven, one on each side of the first-filled gallery, and timbered and filled in the same way. When these are finished another gallery is then put in immediately over the first one, and all the recoverable timber of the first gallery is drawn up out of the filling, and this fourth gallery is timbered and filled in the same way as the previous ones. A fifth and sixth gallery are then driven alongside of the second and third, and, when completed, a seventh and eighth are put in immediately over the second and third, the timber from the gallery below being again drawn up out of the mullock, and the galleries

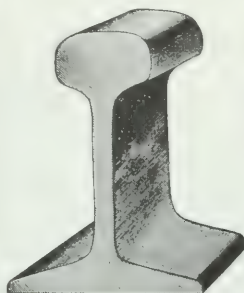


The Old Mills of the Proprietary Company. On the left are the "New Mills," and on the right are the "Old Mills," both in active operation,



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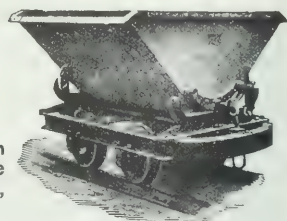
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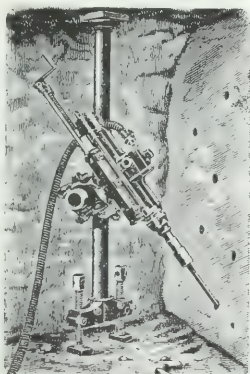


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themselves timbered and filled as before. These cross-cuts are continued alternately upwards until the level above is reached; the bottom timbers of this level are caught up in the usual manner, but no timber is recovered from the galleries immediately below the old level.

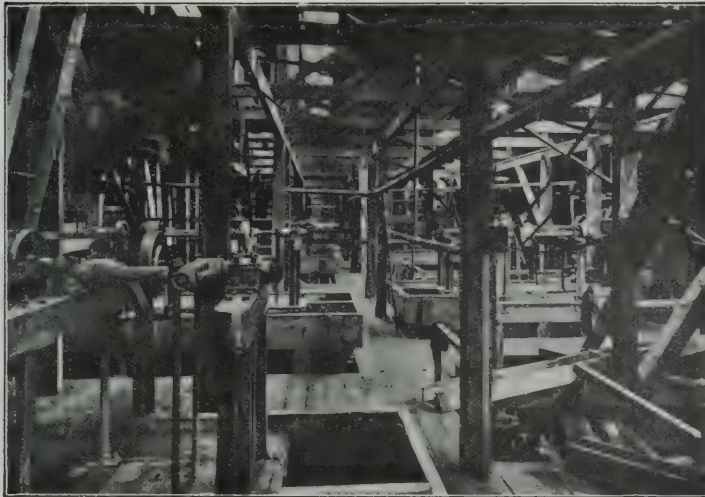
**"CROSS-CUT" SYSTEM.** In some places in the Proprietary Mine the ground is blocky, that is to say, it consists of large and small boulders. Neither the open stope (or bulkhead) system nor the square set system would be suitable for this class of ground. A modification of a system in use in one of the Spanish mines was therefore introduced, which enabled the supports to be close to the working face. This system is called the "cross-cut," and, shortly described, is as follows:—

A mullock pass to connect with the level above is made; in the centre of the lode running parallel with the walls a drive is put in both ways, and timbered and connected with the mullock pass. Every 60 feet a chute and ladder-way composed of square sets of timbers is laid off to one side of the drive. From each of these chutes a cross-cut is run both ways to the walls of the lode, and timbered and paddocked and filled with mullock. On one side of each of these initial cross-cuts is taken a stope 7 ft. wide, and the same height as the cross-cut, viz., 8 ft. This is carried into each wall, and timbered and paddocked and filled. Two more similar cross-cuts are started, one on either side of the ground already extracted, and this process is continued until the whole of the ore on the floor is mined out, when a new floor on similar lines is commenced.

The method of timbering, paddocking, and filling is as follows:—The drive sets are made up of legs 6 ft. long, and tapered, being 10 in. x 6 in. at top and 8 in. x 4 in. at bottom, with a hole 1 in. in diameter about

6 in. from the top, bored through the smaller way. Foot-boards composed of old pieces of timber, from 2 ft. to 3 ft. long, are placed under the legs to prevent them sinking into the filling. The cap pieces (10 in. x 10 in., and 6 ft. long) are laid lengthways with the drive or cross-cut. On top of the leg, to give a greater bearing surface to the end of the cap, a corbel, 10 in. x 4 in. and 18 in. long is placed under the cap piece, the cap pieces abutting immediately over the centre of the leg. Cross pieces of 10 in. x 10 in. and 7 ft. long are placed on top of the cap reaching across the drive or cross-cut. On top of the cross pieces is placed the lagging, composed of 10 in. x 2 in. Oregon, and the same length as the cap.

This completes the timbering, and paddocking is then pro-



General View of the "Jig" Floor in the Ore-Dressing Mills of the Proprietary Company.

ceeded with. This is put in to prevent the filling from running into the succeeding cross-cut, and is carried out as follows:—At the foot of the legs inside, and stretching from leg to leg lengthways, is placed a 10 in. x 2 in. board on edge; laths 5 in. x 2 in., 6 ft. long are placed vertically and close together inside this piece of 10 in. x 2 in., the top end resting on the inside of the cap. These laths are not nailed, but are supported temporarily in their place by the pressure of the filling. This is done on both sides of the initial cross-cuts, but of course one side only of the succeeding cross-cut. The legs of one side of the cross-cut form the legs for one side of the succeeding cross-cut.

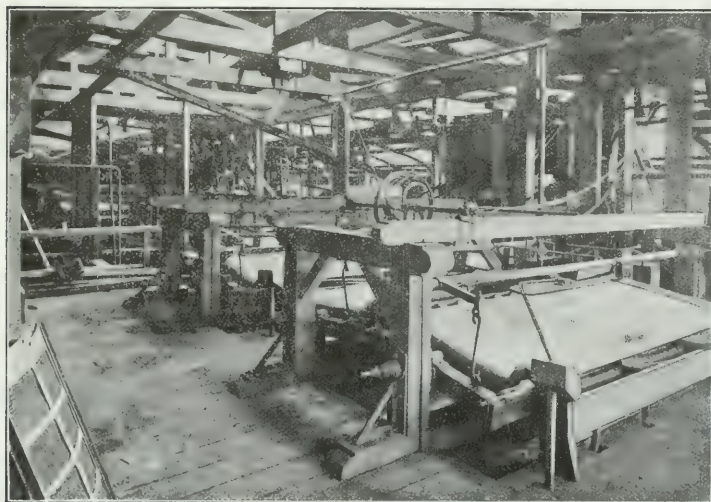
This is the whole of the timbering put in, and when the floor above comes to be worked, about two-thirds of it is recovered and used over again.

The method of filling is as follows:—When the initial cross-cut has reached a wall, paddocking is started, and filling follows. The filling is trucked from the mullock chute already mentioned to the cross-cut, the truck is tipped, and shovellers fill from floor to roof. The filling is shovelled as tightly against the roof as possible, and as the filling of the cross-cut approaches the centre gallery, the mouth of the cross-cut is lathed off until the filling reaches the roof. Along each level of the mine is a main gallery running from end to end of the level. All the ore



is sent from the stopes to this main gangway, where horses pull the trucks to the shaft. The galleries are laid in gradients, which makes the energy required to pull the full trucks to the shaft the same as pulling the empty trucks back again.

The whole of the ore is hoisted up one main shaft, and this one shaft sends to the surface when hauling ore at the rate of  $2\frac{1}{2}$  tons per minute. The record tonnage hauled is 1,650 tons in 7 hours. Each cage contains two trucks, end to end, and the trucks contain about one ton each.



Luhrig Vanners in the Ore-Dressing Mills—for Dealing with the Fine Slime.

the possession of the Company, proving one of the wisest courses that have been pursued, for now a substantial profit is being made from these by-products, which at one time were counted valueless.

Then came the production of spelter—the great zinc question—the successful treatment of tailings under the salt-cake process—the manufacture of sulphuric acid, of which Mr. G. D. Delprat, speaking recently, said:—“The Broken Hill mines had always been spoken of as silver-lead mines. He thought that was a mistake. They were silver, zinc and sulphur mines. In speaking about the Broken Hill mines, he considered that lead had received more attention than its due. For the future lead and silver should take a back place, as zinc had now come forward, and it was going to be an important product of the mines. Processes were being perfected which would enable the material to be successfully treated, and when that time arrived things would again be as prosperous as they were when men were shovelling silver out of the open cut. The present annual output of ore at the Proprietary was 600,000 tons, averaging 16 per cent. of zinc. The total world's output of zinc was 536,000 tons, and to that quantity the whole of the Broken Hill mines together could contribute one-third. The average quantity of zinc taken out of the mines along the line of lode per year was 200,000 tons. This was not wasted, but put by for future treatment. The Barrier ores contained large quantities of zinc and sulphur. The object aimed at was to separate these two products. There was a vast quantity of sulphur in Broken Hill ore, and in the old smelting days some of this was carried away with the smoke from the chimneys; but the management at that time never entertained any idea of directly getting rid of the sulphur in the ore. To do this it was necessary sulphuric acid should be produced cheaply, and the Proprietary mine management had now decided not only to produce the acid, but to manufacture it so cheaply that they could supply it to those mines which sooner or later would have to go in for the acid process. He thought that, as they could make sulphuric acid so cheaply, the Proprietary Company would go in for manufacturing it on a large scale. Great quantities of superphosphates were annually imported into Australia, but when the Port Pirie works of the Proprietary Company were started, there would be no further need for the importation of superphosphates. There would soon be very few people who would feel justified in regarding the future prosperity of Broken Hill with indifference.”

Examining the official publications of this Company—the pioneer of the great mining companies which are at present working this huge Broken Hill lode—we find many interesting facts.

To those who have watched the development and management generally of the Company, it is a source of gratification to find that every product (after the Company had got fairly started with same) was dealt with, and finally reduced to a finished marketable product. One by one all stages have been gone through. The first started was the production of silver, next lead, then saving the gold, and producing lead in a marketable form, and refined silver. Next commenced the treating of by-products, keeping them all in



The present Company, as originally floated, consisted of Blocks 10, 11, 12, 13, 14, 15 and 16—all directly **CAPITAL.** in the line of lode. The date of registration was August 13, 1885. The Company consisted of 18,000 shares of £19 each, and the consideration money paid to the then holders (the Barrier Ranges Mining Company) was 16,000 shares paid up to £19 each, and £3,000 cash. The 2,000 shares offered to the public were issued at £19 paid up on payment of £9 per share. The Company therefore had a cash capital of £15,000 to commence with.

In 1889 it was found necessary to re-form the Company, the immediate cause being that the great market value attached to the shares made them unwieldy. The shares were increased from 16,000 to 160,000 of £2, necessitating a call of 2s. per share; the call was, however, made simultaneously with the declaration of a dividend. In 1890 the shares were sub-divided into 960,000 shares of 8s. each, and the Company now carries that share register.

Development work quickly revealed huge bodies of ore, and in order to open up the property more expeditiously, Block 14 was sold to a separate and distinct company, by resolution of shareholders, on February 16, 1887. On July 28 of the same year Blocks 15 and 16 were dealt with in a similar manner, whilst in March, 1888, Block 10 was also disposed of. The parent company therefore retained Blocks 11, 12 and 13, which they hold at this present day—a length of  $\frac{3}{4}$  mile along the line of lode.

**REPORT ON MINE.** In the first published report of the mine after the foundation of the Company, we find the following description of the property, dated December 6, 1886, by Mr. John Provis, an expert engaged by the Company to report:—"Broken Hill is a large fissure vein extending with interruptions from the Broken Hill South Company's claims to Piesse's Nob, a distance of 9 miles. It is most prominent in the Broken Hill Proprietary Company's claims, where it stands out conspicuously on the crest of the hill, extending from Block 10 on the South-West to the middle of Block No. 15 on the South-East.

"The principal mineral constituents of the vein are oxides of manganese and iron carbonate of lead and kaolin. In connection with these minerals the silver occurs almost entirely as chloride, chloro-bromide, and less commonly iodide. There are four distinct classes of ore in the vein, viz.: Lead ore, which predominates in the workings between Rasp and McCulloch shafts; iron ore, which occurs mostly south of McCulloch shaft, between Brodriff and Knox shafts; kaolin, in the vicinity of Knox and No. 5 shaft; and copper ore, occurring in small quantities at Rasp shaft.

"Fixing the weekly output at 1,500 tons, the available ore in reserve will last for many years to come, and large profits can confidently be relied on. By opening up other shafts, and extending levels with all possible speed, the mine can be made to yield 3,000 tons of ore per week.

"The value of the ore smelter has averaged 83 ozs. of silver per ton. It is not to be considered that the whole of the vein will average this. The results of a large number of assays taken in different parts of the mine show that the quantity of ore that will average 40 ozs. is practically unlimited."

The report closes with: "A week spent at the mine itself, in examining into the nature and extent of the vein and its value, will convince the most sceptical that the mine is destined to rank amongst the foremost of the leading silver mines of the world."



General View of "Proprietary's" Smelting Buildings, with Wharf in Background, Port Pirie.

How true this prophecy was is shown by the results of the first 20 years of the Company's **BALANCE SHEET.** existence, taken from the half-yearly report, dated May 31, 1905.

#### TWENTY YEARS' BALANCE SHEET.

As the close of this half-year completes the 20th year of the Company's existence, a statement has been

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Outlast  
all  
others  
on  
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Roads.  
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Before purchasing Cycle Tyres.  
Our Vulcanized  
**DUNLOP TYRES**  
They cost you a few shillings more  
but they are worth it  
containing as they do the highest  
Quality of Material & the Best  
Mode of Manufacture under  
Hydraulic Pressure.  
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**DUNLOP RUBBER CO. OF AUST. LTD.**  
117 Grenfell Street, Adelaide.

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# Wire Ropes and Cables

**John A. Roebling's Sons Co. of New York**

**High Quality Flexible Iron and Steel Wire Ropes for Mines,  
Haulage, Elevators, &c.**

Stocks on Hand.

Any Length Cut.

**Electrical Copper Wire and Cables.**

**Copper Telephone Wire.**

**Iron Telegraph Wire.**

**Copper Tapes and Binders.**

**Underground and Aerial Telephone Cable.**

**Copper Strand, &c.**

**Representatives :**

**ALEX. FRASER PROPRIETARY, LTD.,**

**39 QUEEN ST., MELBOURNE.**

prepared by the Secretary, which shows the total production, together with revenue and expenditure, since the inception of the Company in 1885.

Gross ore treated, 7,747,306 tons. Lead produced, 733,025 tons. Copper produced, 4,576 tons. Antimonial produced, 7,201 tons. Silver produced, 129,740,728 ounces (fine). Gold produced, 82,933 ounces.

## RECEIPTS.

Net Amount received .. ..	£26,808,743
Cash received for Sale of Blocks 15 and 16 .. ..	576,000

£27,384,743

## EXPENDITURE.

General Working Expenses .. ..	£17,123,774
Depreciation .. ..	938,999
Dividends and Bonuses Paid—	
From Profits .. ..	£7,984,000
„ Sale of Blocks 15 & 16 .. ..	576,000
„ Call made .. ..	16,000
	8,576,000
Reserve and Insurance Funds .. ..	165,500
Balance of Profit and Loss Account .. ..	580,470

£27,384,743

HARVEY PATTERSON, Chairman.



A Portion of the "Proprietary's" Refinery at Port Pirie.

In the background is the fenced off portion of the works into which all Silver material is transferred so soon as it reaches a grade of about 50 per cent. of Silver.

The furnaces within the enclosure convert it into pure silver (998.5 fine.) No one, but those actually engaged on the operation, is allowed within the enclosure

of his engagement, Mr. Conway (late with the Barrier Ranges Association) was appointed in his stead during the latter part of 1886, to be succeeded on April 18, 1887, by Mr. H. H. Schlapp (late superintendent of the Pueblo Smelting and Refining Works, Colorado). With the advent of Mr. Schlapp the 30 ton furnaces (which had in the meantime been increased to five) were replaced by 80 ton furnaces, three of which were started up in February, 1888. From then onwards the plant was gradually increased, and on April 16, 1898, when smelting operations were transferred to Port Pirie, it consisted of 15 smelters.

## PLANT IN THE EARLY DAYS.

With the development of the mine, large bodies of low-grade ore were met with, which would have been unprofitable to smelt in its crude state, and Mr. Holly, an American expert in ore concentration, arrived in Broken Hill early in 1888 to erect the first concentration plant. This plant had a capacity of from 250 to 300 tons per day, and the first trial runs were made during the latter half of 1888. The plant was complete and running early in 1889. To deal with

The first parcel of ore sold was sent to The Intercolonial Smelting and Refining Company, Spottiswoode, Melbourne. It consisted of 48 tons 5 cwt. 3 qrs. 15 lbs., and contained 35,605 ozs. 10 dwts. 19 grs. of silver. The payment received for this parcel amounted to £7,442 12s. 11d., whilst the charges in bringing it down to Melbourne are shown as £499 9s. 7d.

With immense **SMELTING.** bodies of ore in sight, and considering the heavy charges for smelting, the Company at once started to erect its own treatment plant, and on May 6, 1886, we learn that two "Nevada" smelters were blown in. They ran for nine days, when one was shut down, owing to shortage of coke due to insufficiency of teams. Mr. Stearn, of the Intercolonial Smelting Company (who erected the smelters), was the first metallurgist in charge, and on the termination



the quantities of dry silver ore (i.e., silver ore with little or no lead), a Leaching Plant to treat 2,800 tons per week was erected, and the first portion started in May, 1890. Owing to the varying chemical combination in which the silver was found to exist in the mine, this plant ran with only partial success until chloridising furnaces were erected in conjunction with it. These furnaces roasted the ore in the presence of common salt, and converted the silver present into a chloride, and thence onwards this plant operated with highly successful results up to the time when the whole of this "dry" oxidised ore had been extracted from the mine. An amalgamation plant (crushing and amalgamating with mercury) of considerable capacity was also erected to deal with these same ores, and worked concurrently with the chloridising and leaching plant from 1892 to 1896, when it was closed down, and the leaching plant handled the whole output.

Seeing the wide margin between the market value of the silver lead bullion sold and the net amount received by the Company, it was decided, in the latter part of 1888, to erect refining works at Port Pirie. This plant consisted of four 20-ton desilverising pans, four 20-ton refining pans, two liquation furnaces, and one dross furnace, and started operations in December, 1889.

The first parcel of refined silver sold by public tender in Australia on May 8, 1890, consisted of 184,343 ozs., and was purchased by Messrs. Gibbs, Bright & Co., the price being 3s. 9½d. per oz.

So much for the early dry plants of the Company. The ore produced from the mine at the present day is practically all sulphide ore, and the methods of handling and treatment adopted are:—

The crude ore, as it comes from the shaft, is taken on an endless rope to ore bins having a capacity of about 800 tons. These bins command five No. 5 Gates breakers, which crush the ore to about 2 in. gauge. The ore is then sampled in the new mill, and passes on to fast belt ribbon rolls (37 revolutions per minute) into which it is fed automatically. All that which will pass through a 3-32nd in. screen is ready for the coarse jigs of the concentrating plant, but that which will not, goes to a second set of rolls similar to the first, but running at 45 revolutions per minute, and set at a distance of 1-8th in. to 3-16th in. apart. The same practice is again followed, that which will pass through a 3-32nd going to the coarse jigs of the concentrating plant, but that which will not is sent to another set of rolls running at 78 revolutions per minute, and set at a distance of 1-16th in. apart; here again the same practice is followed, but the over-size goes to a ball mill specially arranged for wet grinding, and the operation at this stage reaches finality, all the ore being of the required fineness for the coarse jigs of the concentrating plant. In these various crushings, shaking screens have replaced trommels for separating the fine ore from the over-size. All the crushed ore which has passed through a 3-32nd in. screen on entering the concentration plant is first passed through a slime separator. This separates the fine slime from the coarser particles; the former goes to the slime department and the latter to the jigs. These jigs are machines of five compartments (each compartment being in the form of a pointed box or hutch), in the top of which is a screen operated by a plunger. The coarse particles of ore are then fed on the screens of the jig, and are kept agitated by means of the plungers. This motion tends to keep the particles of ore partly in suspension, and at each upward stroke of the plunger the heavier or more metallic particles naturally fall the quicker, and pass through the screen into the hutches, while the lighter and poorer material gradually flows over into the last compartment or hutch as tailings; the values of the products thus obtained being higher in the first compartment than in the second, and in the second than the third and so on. The tailings are passed over shaking screens (size of screen 1-45th in.) the through product going to the zinc plant, and the over-size going to bins, and are trucked out to the dump by means of an electric motor. The middlings are sent to a ball mill, where they are ground to a fineness which will pass through a 1-32nd in. screen. After being freed from slimes (which go to the slime department) they are then put through another set of jigs containing four compartments, which again make two products, viz., concentrates and middlings. The concentrates are dealt with in a similar manner as with the first set of coarse jigs. The middlings go again to a ball mill grinding through 1-45th in. screen, and after being deprived of its slime are again passed through a second set of jigs, and make three products, viz.: Concentrates, middlings and tailings. The concentrates are dealt with as before, and the middlings are kept in circulation, passing through the ball mills and on to the jig again, and the tailings are sent to the zinc plant. No handling occurs of any description; each product goes to its destination automatically.

The fines obtained from the various crushing operations, which have all come automatically to one point, are now separated into coarser and finer slimes, and go respectively to the Wilfley Tables and Luhrig Vanners. The particles are so fine that in agitated water the weight of the individual metallic particles would not be sufficient to make them sink to the bottom. A description of a Luhrig Table will therefore be interesting. The pulp is then fed on to an endless belt moving slowly, while the whole machine has a percussion or bumping motion imparted to it by

means of a cam. On the belt is playing a spray of water (an iron pipe perforated with a number of holes), and, whilst the forward revolving movement of the endless belt carries the pulp along, the percussion or bump causes the heavier or metallic particles to adhere to the belt. At the same time the poorer and lighter particles come to the top and are more easily washed off, and the heavy concentrates are carried to the end of the belt, where a stronger flow of water washes them off into the compartment provided for them. These concentrates go approximately 55 per cent. of lead.

This completes the operation of ore dressing, and the original ore is now separated into: (1) **Lead Concentrates**, which go to the smelters (which will be described later); (2) **A Slime Product**, containing about 17 per cent. lead and 18 ozs. silver per ton.

These are laid in a layer of about 8 in. deep, and when dry they are cut up into lumps, and sent in railway trucks to what are known as the sintering works. Here they are built into stacks about 200 feet long and 20 feet wide by 67 feet high. In building these stacks, flues are left throughout the base, and firewood placed in the flues

and lighted. The sulphur in the ore causes the whole mass to smoulder and give off dense fumes. When the burning ceases the great majority of the sulphur has been burnt out, and the whole heap is a hard sintered mass. This is broken up by means of sledge hammers, and the product sent to the smelters at Port Pirie.

This operation is necessary before the material goes to the smelters, by reason of its physical as well as chemical form. The operation converts the impalpable dust which smelting furnaces cannot treat into a hard, dense substance, and at the same time burns off a great deal of the sulphur from the material, which, in its original state, was too high to allow of it being fed direct into the blast furnaces.



Portion of the Proprietary Company's Wharf at Port Pirie.

Both coarse and fine. As these tailings contain from 12 to 17 per cent. of zinc, they are sent to the **TAILINGS.** zinc plant, where they are submitted to further concentration for recovery of these zinc contents as a high-grade zinc concentrate. This is effected by the salt-cake process, the salt-cake being a mixture of sulphuric acid and common salt. The material is fed into a warm bath of salt-cake solution, which, owing to its chemical action on the constituents of the ore, brings about the formation of bubbles, which attach themselves to the metallic particles, and cause them to ascend to the surface (in a manner similar to a lemon pip in aerated water) whence they are floated off. The worthless portion consisting of quartz and rhodonite the bubbles leave severely alone, and it falls to the bottom, and is drawn off and utilised for filling the underground workings, whence the crude ore has been drawn.

The zinc concentrates resulting from this latter operation are sold to European spelter works, but the Company has at present in course of erection the first unit of a zinc distillation plant, for the conversion of these sulphide of zinc concentrates into spelter (metallic zinc).

These are the methods of dealing with the ore at the mine.

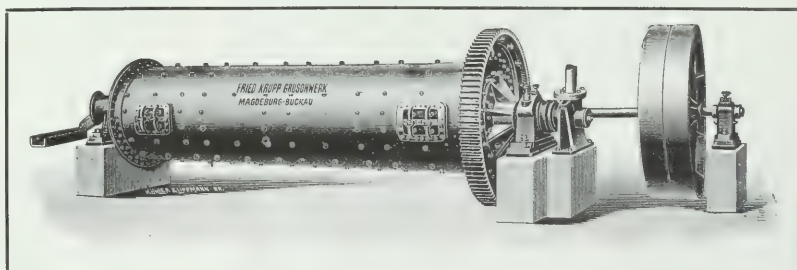
To carry on these operations, as well as that of mining the ore, the Company have erected machinery **MACHINERY.** —the most modern and perfect of its kind. In the year 1886 the boiler power on the mine was only 88 h.p., and the engine power 74 nominal. Now the Company's machinery at the mine includes engines at the ore dressing mill equal to 850 h.p.; air compressors of about 2,500 h.p., of capacity of about 13,000 cubic feet of free air per minute; a condensing plant to deal with 48,000 lbs. of steam per hour, with cooling

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Our Wet Tube Mills and Dry Tube Mills are also largely employed for Mining and Industrial Purposes in South Africa, Mexico and Australia.

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towers and fans; a central boiler plant of 3,000 h.p., and pressure of about 120 lbs. per square inch, fitted with chain grate stokers and mechanically-handled coal and ashes, and a Green Economiser and Superheater; electric power plants of about 1,000 horse-power; two sets of winding engines—one used for hauling ore, men and horses, the other for timber, tools and men; two railway locomotives, and three electric traction locomotives.

To provide the necessary salt-cake for the zinc plant, salt is obtained from salt lakes in South Australia, and sulphuric acid is made on the mine itself by the ordinary chamber process by burning sulphur brought from Japan.

The production of metallic zinc necessitates the roasting of the concentrates as a preliminary operation. When this is in regular works the sulphurous fumes given off from the roasters will take the place of the crude sulphur in the manufacture of this acid.

There are five chambers, and the output is equal to over 5,000 tons of pure sulphuric acid per annum.

The Company has its own foundry and fitting shops, etc., etc., and a new and up-to-date laboratory, with all the latest appliances, where the testing, assaying, and general research work are carried out by a large staff of expert chemists. So much for the Broken Hill establishments.



A View of the "Proprietary's" Sintering Works, about 4 miles from Broken Hill.

On the left the ground is prepared for the reception of a new kiln, the flues being plainly shown; while on the right the finished product is being loaded into trucks for transport to the Smelters at Port Pirie. A view of the Pinnacles Group being visible in the far background.

through them. They are thus converted from a sulphide of lead into an oxide of lead, and changed from a sandy material into a hard, compact mass, which is broken up and sent to the smelters.

There are thirteen smelters at the works, but only eight or nine are in regular work, and each of these produce about 25 tons of bullion per 24 hours. The smelters churn out the lead, silver and gold all mixed together, and this bullion is taken to the refining works for separation. There it is turned out as fine silver and pig lead, which are sold to London, India, and China, and gold, which is sent to the mint for coinage.

**IRONSTONE MINES.** In order to carry on these operations, the Company has its own ironstone mines, which are situated on the opposite side of Spencer Gulf, about 33 miles inland. These mines are connected by the Company's own railway with the coast, and for their shipment the Company has a jetty 1,470 feet long, at a height of 26½ feet above low water. This is the highest jetty in the colonies, and the iron ore is run in hopper waggons on to it; these hopper waggons open at the bottom, and the ore runs into a shoot, and thence into barges, which are taken by tugs across the Gulf to the smelters. At this establishment the Company has two locomotives.

At the present moment the Company places nothing but finished products on the market; that is to say, refined metals, with the exception of zinc concentrates, and in order to do this it has further works at the seaboard situated at Port Pirie. Port Pirie is connected by rail direct, and is a distance of 234 miles. Here the plant consists of blast furnaces and refineries.

The materials which arrive at the smelting works for reduction are lead concentrates, sintered slimes and oxidised ore.

The first-named, being in the form of a sulphide of lead, goes first to a roasting plant, consisting of five mechanical roasters of the "Ropp" type, where they are mixed with limestone and iron ore and passed through the roasters and on to converters, where air is blown

**LIMESTONE.** At Point Torton, which is situated on the same Gulf, the limestone necessary for the smelting operations is quarried from a cliff close to the seaboard, and transported to Port Pirie in a manner similar to the ironstone.

**COKE.** For providing the necessary coke for smelting operations, the Company has works at Bellambi, New South Wales, where between 70 and 100 men are engaged.

## THE OUTLOOK.

During a little over twenty years the Company has received over Thirty Million Pounds Sterling for their output, and in the same period have paid away in Cash Bonuses and Dividends over Eleven Million Pounds. At the present time the ore reserves total over 3,600,000 tons, and in addition there are 2,500,000 tons of zincy residues which are now being treated satisfactorily by the Company. Without fear of contradiction, it is the best-managed mine in the world; the technical skill of the experts, with Mr. G. D. Delprat at the head, having set a standard in mining which has proved of world-wide benefit to the industry; and few, if any, mining concerns can show such a satisfactory state of affairs as exists at the present day, together with such a solid future ahead. The accompanying figures should prove interesting to those who have followed the history and growth of this mine, as already set forth in this work.

1900 to 1907.			
Value of Company's output, without deduction of Working Expenses, as per Working Account, money actually received (net).			Dividends, &c., Paid.
	£	s. d.	
May, 1900 .....	609,427	15 6	1900 ... £216,000
November, 1900 .....	719,453	5 10	
May, 1901 .....	719,599	5 6	1901 ... £168,000
November, 1901 .....	669,315	18 11	
May, 1902 .....	652,005	15 1	1902 .. £96,000
November, 1902 .....	644,285	19 0	
May, 1903 .....	629,755	16 11	1903 ... £96,000
November, 1903 .....	635,115	0 0	
May, 1904 .....	701,488	2 8	1904 ... £216,000
November, 1904 .....	744,670	4 1	
May, 1905 .....	745,977	7 5	1905 ... £288,000
November, 1905 .....	808,385	11 6	
May, 1906 .....	757,159	3 9	1906 ... £432,000
November, 1906 .....	868,042	4 8	
May, 1907 .....	919,585	1 7	May 1907 £240,000
<b>Total</b> .....	<b>£10,824,566</b>	<b>12 5</b>	<b>£1,752,000</b>

<b>Reserve and Insurance Funds</b> .....	<b>£260,000</b>
Invested—	£ s. d.
Metropolitan Board of Works .....	20,162 10 0
South Australian Treasury Bonds .....	85,289 1 3
New Zealand Government Debentures .....	8,070 0 0
Fixed Deposits .....	146,478 8 9
	<b>£260,000 0 0</b>

<b>Net money received for Company's output</b>
(not deducting Working Expenses), from
inception of Company to May, 1907 . . . . £30,161,914

<b>Dividends and Bonuses paid to May 31, 1907.</b>	
Cash distributed to Shareholders, total amount of dividends paid (Nos. 1 to 150) ..	£8,488,000
Total amount of Cash Bonuses paid . . . . .	328,000
Cash received for Sale of Blocks 15 and 16 ..	576,000
Shares distributed to Shareholders (nominal value)—	
In B.H. Proprietary Block 14 Company ..	432,000
In British B.H. Prop. Co. . . . .	400,000
In B.H. Prop. Block 10 Company .. . . .	912,000
Grand Total . . . . .	£11,136,000

Present Weekly Tonnages.	
Crudes . . . . .	12,000 tons
Lead Concentrates . . . . .	2,200 "
Smelter Slimes . . . . .	1,800 "
Zinc Concentrates . . . . . from 1,500 to	2,000 "
Sulphuric Acid . . . . .	90 "
Lead (including contents of Zinc Concentrates)	1,300 "
Silver (including contents of Zinc Concentrates)	110,000 ozs.
Gold . . . . .	35 "

### Average Price of Metals, 1907.

	Lead.	Standard Silver.	Zinc.
January, 1907 ..	£19.8328	2/7.7	£27.3551136
February " ..	£19.275	2/7.796875	£26.071875
March " ..	£19.7296875	2/7.3472	£26.23125
April " ..	£19.81547	2/6.27083	£25.869047
May " ..	£19.879261	2/6.5	£25.70739
June " ..	£20.3	2/6.86719	£24.50625



The Latest General View of the South Mine. September, 1907.

## BROKEN HILL SOUTH SILVER MINING COMPANY, NO-LIABILITY.

The present capital of this Company is £200,000, of £1 shares, of which 126,812 have been issued as fully paid up, and 73,188 paid up to 9s. 6d. The Directors are: Molesworth R. Greene (Chairman), W. M. Hyndman, B. A. Moulden and F. C. Howard; the Manager, Mr. W. E. Wainwright.

**EARLY HISTORY.** The Company was originally known as the Broken Hill South Silver Mining Company Limited. The property comprises blocks known as 7 and 8, an area of 68 acres, bounded on the north by the Sulphide Corporation mine, on the west by the Central Extended and water leases, on the south by the South Blocks, and on the east by the town of Alma. The lode runs in a north-east and south-west direction, through the middle of Blocks 7 and 8, over a length of 2,250 ft., of which 1,500 ft. have been developed. From the surface to the 425 ft. level, the ore passed from carbonate to very high grade friable sulphides. There are at present, however, no workings above the 425 ft. level, but from the 525 ft. to the 825 ft., the lode is of very large dimensions, in compact sulphide ore.

The mine started work 22 years ago, in the year 1885, under the management of Mr. W. H. Morish. Ore was first met with in sinking the shaft, and in the early part of 1888 oxidised ore was raised, and sold for treatment to outside smelter companies. In the same year Richard Piper, the then manager, started concentrating experiments with Cornish jig. Three years later the Company started smelting operations on the mine. A large plant, consisting of three 80-ton smelters, was blown in for active work in August—these smelters, after a very short life of two years, were closed down. A parcel of sulphide ore was, in 1893, sent to Moonta, and there treated by Captain Hancock. The results were satisfactory, and during the same year, chiefly through the efforts of Mr. Rodway, a concentrating plant—capable of treating 1,000 tons a week—was started, and on January 14, 1894, concentrating plant, consisting of one 12 in. x 7 in. jaw breaker, one 27 in. x 15 in. Cornish rolls, and one Hancock Jig, was put into operation, treating high grade friable sulphides with satisfactory results. This plant was added to in 1895 by Cornish buddles.



View of the Old Concentrating Mill as obtained from the brace floor of No. 1 Shaft, looking North.

All the ore from the mine at present is treated in this plant. The capacity is about 4,200 tons per week. The picture shows the concentrate floors, and railway trucks ready to receive loading.

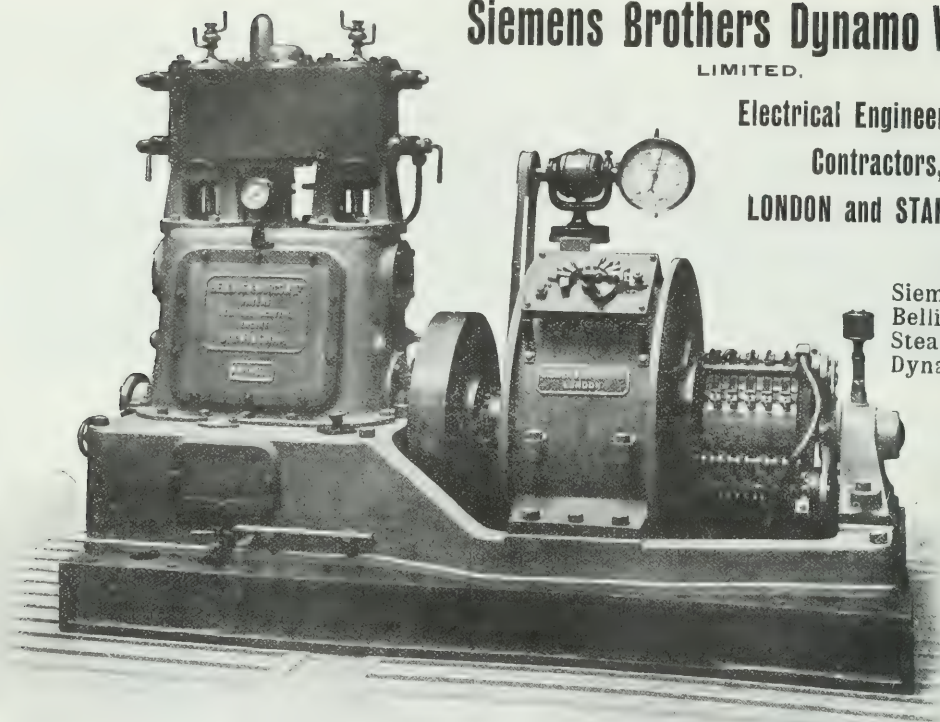


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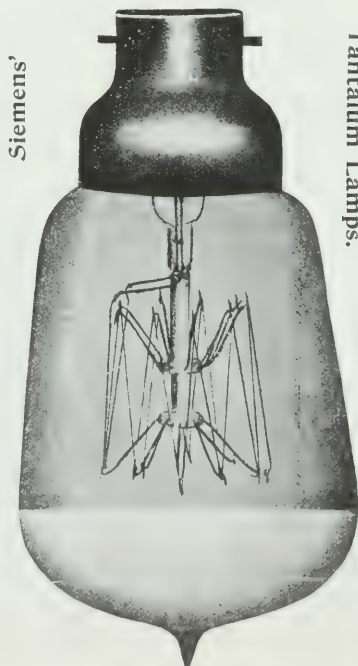


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Automobiles with  
special-locking ter-  
minals to prevent  
loosening of wire  
due to vibration.



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Estimates Given.

## Transport Cell

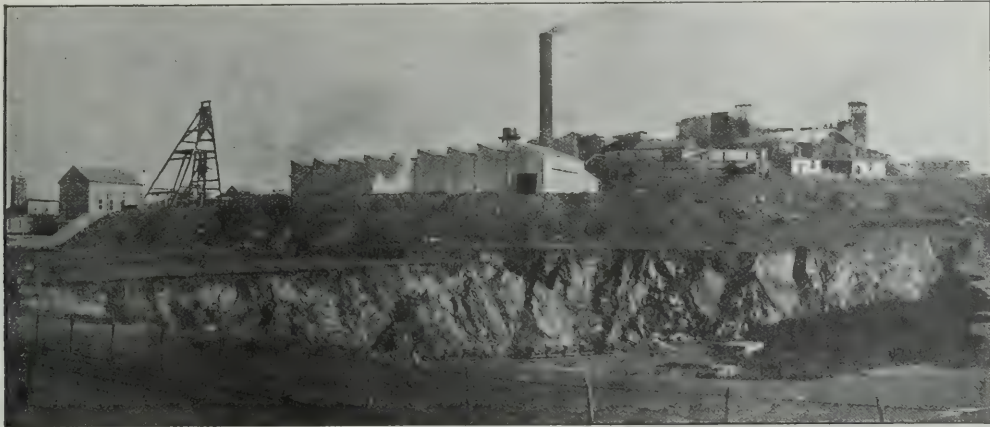
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mobiles. A safely  
sealed fluid primary  
cell, can be stored  
indefinitely when  
dry, and charged as  
required.



**16 O'Connell St., Sydney**

**29 William St., Melbourne**

The South mine was placed on the dividend-paying list by paying its first dividend of 6d. on January 22, 1897. Up to this period the concentrating plant was working with such satisfactory results that it was decided to increase the capacity of the mill to 2,000 tons weekly, and at the same time effect certain improvements. In the latter



Panorama of South Mine, taken June, 1905.

The new Engine house and new poppets, at No. 1 Shaft, are seen on the left. The latter were in course of erection at this time, consequently they appear incomplete. The iron building in the middle is the large new workshops, and the mass of buildings on the right represent the old mill, the No. 2 shaft and the engine house. The excavation in the foreground is Section C quarry from which mullock filling for the stopes is obtained.

part of 1898 these additions and improvements were completed. The operations at this stage became so extensive and progressive that the Directors issued, in June, 1900, improved comprehensive half-yearly reports, giving full information of the work done during the half-year; this has since been continued. The surface and concentrating plants were re-modelled and extended in 1901, providing for the treatment of 3,000 tons of crude ore weekly. The surface reconstruction included the replacing of the old Lancashire boilers by those of Babcock & Wilcox.

The South mine has for a long time been pursuing a vigorous policy of developmental and exploitation work, the benefit of which will be seen when the economies that must accrue from it will become a feature in its working account. Not long ago, the concentrating plant was, if anything, too big for the mine; to-day matters are reversed, and the mine has become too large for the mill, although its deepest working levels are only 825 feet from the surface. However, to meet the requirements, a new plant, capable of treating 6,000 tons of ore, is being erected.

Too much space would be taken up if a detailed description of the underground workings of this mine were given. But, generally, it may be stated that from the northern boundary of Block 8 to the southern boundary of Block 7, a distance on the line of lode of 2,500 ft., the lode possesses all the chief characteristics of the Broken Hill lode, from the surface downwards, retaining, as an additional virtue, that increase in size and value at the lowest levels which gives the mine such stability.

Right from the surface to the 300 ft. level good grade carbonate ore has been extracted



View of the Northern End of Mine, looking South from hill on the Central Boundary.

On the left is the main boiler stack, and the upper portion of No. 1 Poppet. In middle of the picture appear the No. 2 Shaft poppet and engine house, and behind these, the old mill bins. In this shaft all ore at present concentrated is hauled. On the right is seen the large tank stand and tank, capacity of which is 20,000 gallons. It has an elevation of about 60 ft. above the ground, and gives pressure to the fire service.



(though at all times the ore from this mine has been remarkable rather for its lead than for its silver value), and at the present time many of the old stopes are being re-opened to obtain ore now profitable to extract.



**New Mill—South Mine, looking East from No. 3 Shaft.**

This picture represents the new plant in course to erection. The mill is being placed on the South-Eastern side of No. 1 Shaft, and will be supplied with ore from this shaft. On the left is seen the poppet heads of No. 1 Shaft. Capacity of this new plant is 6,000 tons per week.

From the 300 to the 425 ft. level, which is practically the transition zone from oxidised to sulphide ore, soft, friable and sulpho-carbonate ore has been mined in large quantities, and still occurs in bodies big enough for profitable mining.

Between the 425 and 825 ft. level, the usual sulphide ore (a close mixture of sulphides of lead and zinc, and silver) occurs, of uniformly good value, and suitable for concentration, the stopes varying one from another mainly in the class of the gangue, the latter being accompanied by a rise or fall in silver and zinc values, i.e., rhodonite and garnet gangue means high silver and zinc, quartz-calcite gangue shows low silver and zinc.

Although (as may be seen from the plans) large quantities of sulphide ore have been extracted, there yet remains above the 825 ft. level, on a conservative estimate, 2,000,000 tons or ore.

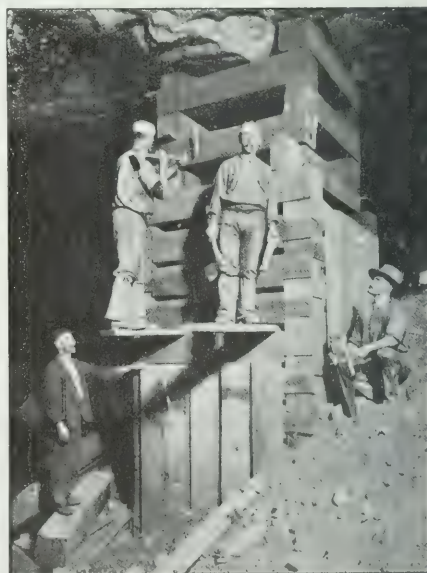
So much for the working levels; but below the 825 ft. level the mine is being opened up at the 970 ft. level, and the main shaft is being pushed on to the 1,120 ft. level.

The 970 ft. level is being systematically opened up, and so far has disclosed 1,000,000 tons of ore, of good value.

From the central boundary to a point 1,400 ft. southerly, eleven westerly cross-cuts have cut the lode, which has been found to vary in width from 40 to 450 ft., the average being about 117 ft. over a distance of 1,400 ft.

The Diamond Drill is being freely used to determine the limits of the ore body, and to ascertain the nature of the country between the lode and the western boundary. The ore at this level averages: 13.0 p.c. Pb., 7.5 oz. Ag., 11.8 p.c. Zn.; while the total ore reserves of the mine will average 3,000,000 tons, assaying approximately: 15.0 p.c. Pb., 5.0 oz. Ag., 12.0 p.c. Zn.

The ore body is thus seen to be increasing in value with depth, and inspection shows the lode to be increasing in width. Moreover, the northerly ore bodies pitch at such a flat angle southwards (30 degrees) that the large bodies now being worked at the



**Photograph taken underground in Stope Section E, 825 ft. level, about 25 ft. above the sill floor.**

The picture represents an ore chute, and bulk built over it. The ore-chute is the means of communication between stope and level, and the bulk catches up the ground and prevents local falls. Two timber-men are at work wedging up the bulk. Mullock filling is seen in the bottom coming in on the rill.



825 ft. in the Sulphide Corporation mine must be found at no great distance below the 825 ft. level in the South mine. Thus the ore body, which is on the boundary at the 525 ft. level, is 600 ft. south of the boundary at the



The New Mill under Construction. Taken 18 8 '07.

825 ft. level. In addition, as the lode goes southwards, it is losing its westerly dip, and becoming vertical, ensuring its retention by this Company at depth. The mine is served with three shafts—two of which are sunk in the lode—through which all present work is carried on.

The new main shaft, 12 ft. 10 in. by 9 ft. 6 in., within timbers, is now sunk in footwall country to a depth of 1,025 ft.; a gallows-framed poppet head, of a height of 104 ft. was erected, and two large cages fixed in position. A powerful winding engine, embodying all modern improvements, and capable of hoisting at least 10,000 tons weekly, is erected to serve this shaft.

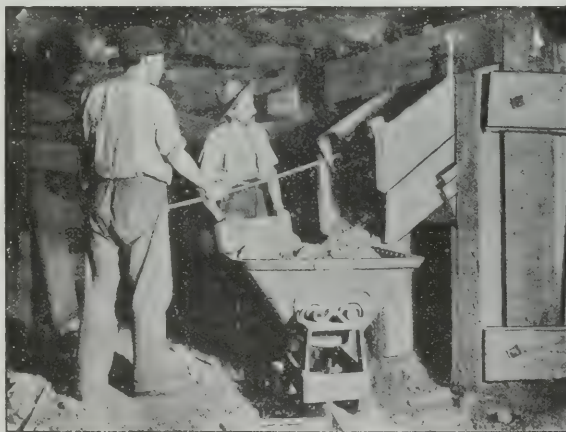
**ORE TREATMENT.** The present scheme of ore treatment is as follows:—The ore from the mine is run by hand trucking to automatic tipplers, passing over a grizzly on its way to the Gates Breakers, to remove fines. From the bins under the Gates, the crushed ore ( $1\frac{1}{2}$  in.) and fines are hoisted to the main ore bins at the head of the mill. From these automatic shaking screens convey the ore to three sets of Cornish rolls (capacity 1,500 tons each weekly). The crushed product from the rolls is screened through 4 m.m. trommels, the oversize returning to the same rolls.

The undersize is passed direct to Hancock and May jigs, without classification, the following separation being made: Galena concentrates, 70 p.c. Pb., 15 oz. Ag., 7 p.c. Zn.; returns—tailings, 7 p.c. Pb., 4 oz. Ag., 12 p.c. Zn.

The tailings are re-ground in grinding pans and a tube mill, and are treated on modified Wilfley tables and Luhrig vanners, where a similar separation to that on the jigs is obtained, so that from the crude ore assaying 15 per cent. lead and 5 oz. silver—a recovery of from 75 to 79 per cent. lead—is obtained in a concentrate assaying 72 to 74 per cent. Pb., and the silver recovery varies from 53 per cent. to 58 per cent.

Among comparatively recent surface and other works the following have been completed, or are about to be so:—

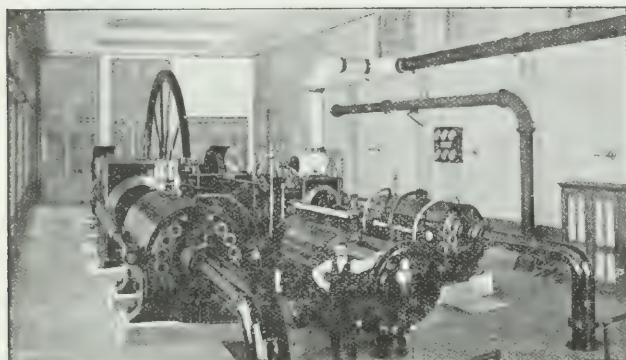
1. Surface and underground fire service.
2. Slime settling pits for mill-water.
3. Coal storage bins, with facilities for expeditious handling of large or small coal.
4. Boiler power plant duplicated.
5. Water storage tank to hold 500,000 gallons.
6. Walker's Air Compressor—35 drills.
7. Two triple-expansion Bellis-Morcom engines, and the accompanying electric generators for power.
8. The new 6,000-ton mill, with all its accessories.



View in same stope as Page 54.

Representing the mode of filling up the worked-out ground with mullock. This material, broken in the quarries at surface, is brought down through passes and winzes into the stope. By means of a chute it is emptied into side-tipping trucks, and from them distributed. One man is loosening the dirt in the chute, and the other holds the door (a 10 in. x 2 in. board), ready to stop the mullock when enough has been received in the truck.

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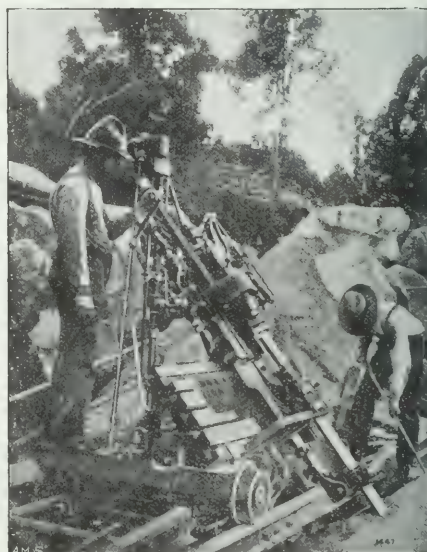
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Refilling operations continue to be attended to with the usual perseverance. A new mullocking system, comprising a centrally situated mullock pass, 8 ft. by 8 ft., in foot-wall country, from the surface to the 825 ft. level, and a feeding tunnel from the mullock quarry in the north-east corner of the lease, is now in operation. The mullock tunnel is 678 ft. in length, and is connected to the quarry by two winzes and an incline horse road.

The residues on hand now amount to: Tailings, 1,003,924 tons, assaying 6.2 per cent. Pb., 3.7 oz. Ag., 16.9 per cent. Zn.; Slimes, 134,082 tons, assaying 12.3 per cent. Pb., 6.2 oz. Ag., 17.1 per cent. Zn.; and the ore reserves, as before stated, to 3,000,000 tons, above the 970 ft. level.

The mine has, since its inception, raised 1,603,491 tons of crude ore, and produced 340,628 tons of concentrates.

## *The Outlook.*

From a financial point of view the Company shows fairly strong, for, after distributing £505,000 in dividends, putting £239,506 into erecting plant and machinery on the mine, and expending a gross amount of £2,198,273 in working costs, plant, etc., the assets at the end of last half-year exceeded the liabilities by £102,060, and the reserve fund had amounted to £45,000.

## *Broken Hill South Silver Mining Co., No-Liability.*

### **For Six Months Ending.**

ITEM.	June 1900	Dec. 1900	June 1901	Dec. 1901	June 1902	Dec. 1902	June 1903	Dec. 1903	June 1904	Dec. 1904	June 1905	Dec. 1905	June 1906	Dec. 1906	June 1907
Crude ore— treated tons	48,004	49,007	51,019	51,650	67,359	68,948	66,743	59,279	85,805	96,894	96,647	95,269	95,601	105,247	101,385
Concentrates (tons)	11,387	11,141	496	10,287	16,812	15,133	13,445	11,727	15,855	17,024	17,201	16,420	16,748	17,218	15,769
Recovery (tons)	23.72 p.c.	22.7 p.c.	22.3 p.c.	19.88 p.c.	21.11 p.c.	18.41 p.c.	16.53 p.c.	16.55 p.c.	15.92 p.c.	17.58 p.c.	17.8 p.c.	17.2 p.c.	17.6 p.c.	16.3 p.c.	15.5 p.c.
Recovery p.c.															
Lead ... ..	67.39	69.22	69.08	70.29	70.22	70.42	66.57	66.87	66.22	73.14	72.7	72.5	74.1	71.3	72.4
Silver ... ..	50.51	4.83	50.24	51.71	54.9	53.95	48.9	50.37	48.81	52.93	54.2	53.6	54.1	53.2	52.2
Zinc ... ..	13.62	.75	12.11	10.53	11.57	8.75	7.1	7.41	7.14	9.55	10.1	10.6	11.8	10.0	7.
Costs (per ton crude s.)															
Mine ... ..	14/2	2/0.1	11/8.1	10/8.9	9/8.8	10/4	11/2.75	10/0.8	10/0.4	9/4.6	10/2.1	10/10.4	12/1.1	10/11.6	12/6
Mine Develop- ment ... ..	1/4.9	1/4.7	1/1	1/4.3	5.8 d	6.4 d	6.25	9.3 d	4.8 d	5.7	8.1	1/2.4	2/1.9	1/1.	3/8.3
Mill ... ..	4/8	4/6.1	4/0.2	3/11.4	3/4.8	3/9.9	3.8	3/4.5	3/7.2	3/8.6	3/9.4	4/1.0	4/4.6	4/0.3	4/9.2
Total ... ..	20/2.9	17/10.9	16.9.3	16/0.6	13/7.4	14/8.3	15/5	14/2.6	14/0.4	13/6.9	14/7.6	16/1.8	18/7.6	17/11.8	20/5.5
Metal prices	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Lead ... ..	16 14 5½	17 6 3.6	13 10 2.6	11 10 7½	11 7 1½	10 18 2½	11 19 8	11 3 8	11 15 10½	12 3 5½	12 13 6	14 15 1	16 6 9	18 7 2	19 17 1
Silver ... ..	2/5½	2/7½	2/6 1/20	2/4.11/20	2/2½d.	2/1½d.	2/1	2/4 1/3	2/3½d.	2/5	2/5 3/16	2/6 13/16	2/8 9/16	2/10	2/9 9/16
Zinc ... ..	21 9 0	19 3 8	17 6 11	16 15 2	17 16 4	19 5 7	21 5 7	20 13 2	21 18 3	23 5 6	24 1 1	26 14 1	26 9 9	27 0 4	24 10 8
Receipts ...	£38,160	£38,898	£67,522	£57,284	£83,587	£72,708	£88,860	£72,218	£116,809	£130,578	£138,536	£162,071	£17,312	£211,733	£222,992

ITEM.	June 1900	Dec. 1900	June 1901	Dec. 1901	June 1902	Dec. 1902	June 1903	Dec. 1903	June 1904	Dec. 1904	June 1905	Dec. 1905	June 1906	Dec. 1906	June 1907
Expenditure	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£
Management ..	2,546	1,775	2,692	1,452	1,937	1,575	1,702	1,303	1,990	2,512	2,675	3,421	3,628	5,635	4,581
Working ..	53,907	48,816	49,492	47,137	58,028	62,485	61,648	49,618	73,536	76,946	82,267	87,501	101,150	106,121	113,865
Capital ..	5,399	16,883	14,329	5,750	1,965	500	253	867	4,578	5,642	8,756	12,080	13,942	22,671	44,247
Total ..	61,852	67,474	66,513	54,339	61,930	64,560	63,603	51,788	80,104	85,100	93,698	103,002	118,720	134,427	162,713
Balance working account ..	34,203	35,073	18,019	10,147	25,50	10,136	27,028	22,384	42,770	52,827	55,223	73,505	70,131	103,911	107,964
Net Profit— Deprecia- tion allow- ed for ..	28,645	.398	12,574	8,695	18,655	4,275	21,016	17,294	20,983	44,181	47,390	52,068	60,046	81,002	93,869
Deprecia- tion not allowed for	31,707	33,307	15,338	8,695	23,622	8,648	25,510	21,	.283	51,118	53,596	71,149	67,534	99,977	104,526
Net Profit per ton crude ore															
Depreciation allowed ..	11.93/-	12.4/-	4.93/-	3.37/-	5.54/-	1.24/-	6.30/-	5.83/-	4.89/-	9.12/-	9.81/-	10.93/-	12.57/-	15.39/-	18.52/-
No Deprecia- tion allowed	13.21/-	13.59/-	.01/-	3.37/-	7.01/-	2.51/-	7.64/-	7.19/-	9.62/-	10.55/-	11.09/-	14.93/-	14.14/-	19.00/-	20.63/-
Total Divi- dends ..	30,000	30,000	10,000	£	10,000	10,000	10,000	10,000	20,000	20,000	35,000	35,000	60,000	60,000	80,000
Excess															
Assets ..	18,732	13,639	4,851	11,403	26,792	23,287	38,918	48,413	61,475	81,224	82,899	106,795	99,665	152,511	102,060
Reserve fund	5,000	7,500	7,500	7,500	7,500	7,500	7,500	10,000	15,000	20,000	25,000	35,000	35,000	45,000	45,000



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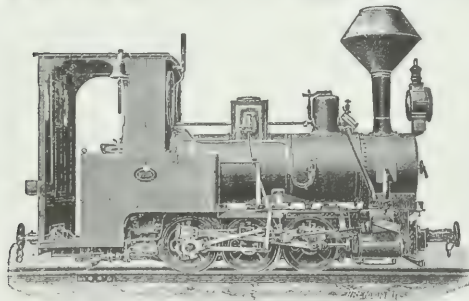


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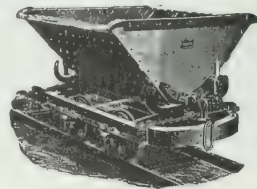
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CORRESPONDENCE INVITED.



General View of Block 10 Mill and Aerial Tram.

## THE BROKEN HILL PROPRIETARY BLOCK 10 COMPANY, LIMITED.

**CAPITAL: £1,000,000, IN 100,000 SHARES OF £10 EACH, PAID UP TO £9 13s.**

### DIRECTORS:

WILLIAM JAMIESON, Chairman.

HON. D. E. MCBRYDE, M.L.C.  
ALEX. CAMPBELL

D. W. HARVEY PATTERSON  
WILLIAM JARDINE

**General Manager: V. F. STANLEY LOW.**

**EARLY HISTORY.** Block 10, as well as Block 14, with the two British Blocks 15 and 16, originally belonged to the Broken Hill Proprietary Company. However, in 1888, Block 10 was formed into a separate Company, of 100,000 shares at £10 each. These shares were issued as being paid up to £9 10s. each, the parent Company taking 96,000 shares. The remaining 4,000 shares were issued to the public, and a call of three shillings per share was made. The £15,000 thus raised provided sufficient funds for opening up the property.

In addition to the original blocks of 36 acres, the Block 10 Company now holds other adjoining leases which bring the total holdings up to 96 acres.

In the earlier days of the field mining was confined to the upper or oxidised zones, and the ore obtained therefrom was sold to European and other buyers. The Block 10 Company never erected smelters of its own. The oxidised material sold was very rich in metals, and contained a very high percentage of silver. The mine was, in fact, considered one of the richest blocks for silver on the Barrier.

When the oxidised ores were becoming depleted, it fell to the lot of Captain John Warren, then General Manager of the Block 10 Company, to be one of the pioneers in concentrating the sulphides to which the oxidised

material gave place. He erected a wet concentration mill on the hill overlying the ore body, and successfully carried on the production of concentrates up to the time of his departure from Broken Hill in 1902. The sulphides first treated were richer and softer than the more compact material found at the lower levels, and proved more amenable to treatment than the ore now being mined.

It was unfortunate that both of the original shafts, as well as the mill, were placed in and immediately above the ore bodies, as the shafts had eventually to be abandoned, and the mill removed on account of ground movements.



The New Power House, Block 10.

The mill had, however, during its lifetime, done excellent work for the Company, and had proved the means of paying handsome dividends to the share-holders. Many of the ore-dressing appliances were invented by Captain J. Warren, whose patent belt vanner is to be seen working at the present time in several Australian mills, where it is highly thought of. Prior to the departure of Captain Warren, a new main shaft had been commenced at a considerable distance west of the ore body. This shaft is

now the only one through which hauling takes place from the underground workings to the surface, and is, therefore, the only roadway for the transit of men, ore, timber, stores, &c. This, the No. 1 Main Shaft, is now being sunk below the 1,315 ft. level, which is the lowest level on the Barrier at which ore is being won. The shaft will be continued in the present instance to the 1615 ft. level, and if satisfactory developments occur at that level it is intended to sink to still greater depths.

In order to facilitate mining operations, and to lighten the pressure of work on the main shaft, as well as to ensure the safety of the mine by having another suitable connection between the surface and underground workings, a second main shaft is being sunk some 270 ft. west of the No. 1 main shaft. This, the No. 2 main shaft, has now reached a depth of 110 ft., and will eventually be connected with the 615 ft. level.

**UNDERGROUND.** The underground policy of the Block 10 Company has always been a most enterprising one, and money has not been spared in developing the ore bodies to a depth. In this respect Block

10 has been the pioneer, and, even to the present day, its main shaft is deeper, and ore is being produced from a greater depth than is the case of any other mine on the field. The work done by this Company in improving the existence at a depth of high-grade sulphides in payable quantities, has been of interest and importance to the whole mining industry of Broken Hill. At the present time an ore body 30 ft. in width, and containing high percentages of silver, lead, and zinc, is being proved at the 1,315 ft. level, where the body is increasing in width as it goes northwards towards the Proprietary Company's workings. Samples of ore taken from this level have assayed as high as 20 ozs. silver, 30.8 per cent. lead, and 25.6 per cent. zinc. In the upper levels a large quantity of ore still remains to be removed, and at the close of the half-year ending on March 31 of this year, it was estimated that 702,000 tons of ore were still available above the 1,215 ft. level.

The work of ore-breaking has always presented considerable difficulty since the sulphide zone has been reached. This has been on account of the size and nature of the ore bodies. In the upper levels the soft, friable material will suddenly give place to the hardest rhodonite, whilst in the lower levels limestone heads in the compact



ore render every care necessary in order to ensure safe working. The mine has, along with the other mines, had its surface and underground movements, but the care observed in safely timbering and filling the depleted zone has mini-



General View showing New Power Plant, Main Shafts, and Aerial Tram.

mised the disastrous consequences which generally attend such movements. The safe policy adopted by the Company in dealing with the ore extraction has proved most efficacious, and has more than warranted the extra expense incurred.

**RE-ORGANISATION.** In 1902 it was decided to re-organise the whole of the mechanical plant in order to obtain more economy in working expenditure. Upon the advice of the best engineering experts it was decided to instal Babcock boilers fitted with mechanical stokers, and to erect an electrical power plant, containing the latest electrical appliances and the best form of condensing engines.

After mature consideration it was decided to build an entirely new concentration mill, at a site at some considerable distance from the ore body, where no ground movements could affect it; it was also decided that the power to operate the machinery was to be entirely electric. This was quite a new departure as far as Broken Hill was concerned, and the result has been so satisfactory that other companies have since adopted the same method.

A suitable site on a hill some 2,000 ft. from the No. 1 main shaft was chosen for the mill, and designs were prepared for an improved milling plant capable of dealing with 3,600 tons of crude ore per week. In laying out the works in connection with this plant it was decided to put storage bins for the reception of ore at the main shaft as it was delivered from underground, and to do the first crushing as the ore was taken from these bins, so that the mill storage bins might be supplied with ore broken to such a size as to be suitable for going direct to the rolls without further crushing. By this arrangement of storage bins, great convenience has been obtained, as the hauling and crushing operations can be independent of each other for a considerable period, and then again, for an even longer period the storage bins at the mill allow the milling plant to be independent of the crushing plant.

**AERIAL TRAM.** After full consideration as to the best methods of conveying the material from the crushers to the mill, it was decided to make another new departure, as far as Broken Hill was concerned, and instal an aerial tram. This aerial ropeway has proved eminently satisfactory, and the cost of conveying the ore from the main shaft to the mill amounts to a little over 2½d. per ton, including all costs for working, repairs, and maintenance.

**ORE TREATMENT.** The ore delivered into the storage bins at the mill having already been broken to 1½ inch gauge, is passed by means of feed rollers over shaking screens to the rolls, where it is reduced in size until it will pass through a screen having holes 1-8th in. in diameter. The material is subsequently treated on May jigs, Wilfley tables, Card tables, and Warren vanners. During the course

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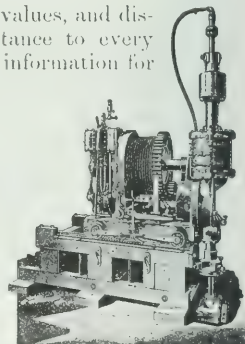
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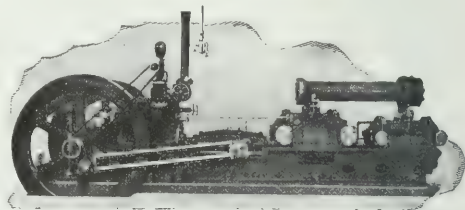
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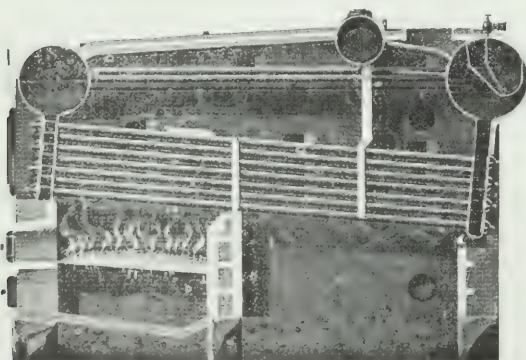


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of concentration, a second size reduction is made by ball mills, and a still further reduction is made by grinding pans. The mill is constructed in four sections, each one of which is entirely independent of the others.

Since the lower ore bodies have been drawn on for supplies the material has become more complex for treatment. The ore from all levels contains a high percentage of zinc, in many cases associated with large quantities of rhodonite. The presence of these materials, and the extraordinary amount of sliming of the galena which goes on during reduction have rendered many additions to the concentration plant necessary. These extra machines need, of course, a large amount of extra power and labor; a large extra quantity of water must also be kept in circulation which, together with the extra expenditure necessary for upkeep of machines, materially adds to the cost of concentration. The recoveries of metals has of late been slightly improved by the introduction of extra slime tables and grinding pans. Exclusive of eight May jigs, the mill contains 50 tables and vanners for dealing with the finer material and slimes. This is a very large number of tables for any mill which treats, on an average, 3,000 tons of crude ore per week, and although, in comparison with the other mills on the field, the number seems excessive, the sliming nature of the ore absolutely requires that such a large plant be used in order to keep up even the present extraction of metals.



Offices, Block 10.

Comment has frequently been made as to the low recovery of the silver contents of the ore, but, when it is stated that recent experiments for treating the by-products show a 90 per cent. recovery of the silver contents of the middlings and tailings with the zinc, it should be sufficient to show that the silver is mostly allied with the zinc, and cannot be recovered by the usual process of making lead concentrates.

When the several processes for producing zinc blende have been perfected, the value of Block 10 mine will be greatly enhanced, as both its crude ore and residues are probably higher in silver and zinc than those of any other mine on the field. The ore in the lowest levels contains as much as 27 per cent. zinc, whilst the average crude ore now going to the mill for concentration contains 19.2 per cent. zinc, the by-products leaving the mill range from 17.6 per cent. to 23.8 per cent. in zinc value.

#### **ELECTRIC POWER.**

When it had been definitely decided to introduce a complete system of electric power, the design of the plant was placed in the hands of an electric expert, who advised the installation of three turbo-generator sets of 240 B.H.P. each. At the time of design it was anticipated that only two of these sets would usually be in operation, the third set being held in reserve; but the alterations and additions which have been made to the mill have necessitated the constant use of the whole three sets. Each turbo-generator set consists of a Parsons turbine, directly coupled to a Brown Boveri generator and exciter, producing a three-phase current of 50 cycles and 500 volts, at a speed revolution of 3,000 per minute.

Very little information was obtainable with regard to the effect of local water and climatic conditions upon condensing plants at the time of installation of this plant, as systematic condensing was a subject which had not then received much attention on the field; but experience has shown that both climate and water are against good results;



in fact, if the surface condensers are allowed to run without cleaning for a month out, vacuum at the end of that period amounts to only 22 inches. Under these circumstances the turbine sets cannot work economically. There is such a loss in economy with this turbine plant that a new generator set has been purchased and erected. This set consists of 710 B.H.P. Allen's engine, directly connected to a Siemen's generator, giving a current similar to that produced by the turbo-generators. The guaranteed steam consumption per kilowatt hour on  $\frac{3}{4}$  load by the Allen-Siemen set is 22.6 lbs., with 50 deg. superheat and 25 inches vacuum, as against 30.6 lbs. for the turbo-generator sets when working under similar conditions. The saving in coal consumption by the new unit will, therefore, very rapidly repay the capital expenditure.

The creep, which some little time back had such disastrous effects on one of the neighbouring mines, also considerably affected the surface workings on Block 10. As the cracks which appeared on the surface extended over a much greater area than had ever been anticipated, it was decided to erect the new electric generator at a site considerably farther to the west of the ore body, and also to move all existing power machinery and boilers to one central power plant, where the various units could be housed under the same roof. This plant is now in course of construction, and should soon be in running order.

### *The Outlook.*

Since the re-organisation of the surface workings, begun in 1902, over £100,000 has been spent in the purchase and erection of machinery, and the mine stands to-day equipped as one of the best on the field. At the present time the ore reserves total 1,000,000 tons, besides 700,000 tons of zinc residues—the mill is doing good work—treats about 3,000 tons of crude ore per week, and produces 500 tons of leady concentrates.

The liquid assets of the Company are over £200,000—the reserve fund amounts to £50,000—while the last balance (March, 1907) shows a net profit of £61,944. A long, useful and profitable life for this mine is predicted.



Bullock Team bringing in Wool from Stations "Out Back."



Camels Resting in the Station Yard after bringing in Wool from "Out Back."



General View of the "Central" Mine.

## SULPHIDE CORPORATION LIMITED.

### "THE CENTRAL MINE."

**CAPITAL:** The authorized Capital of this Company is £962,500, in 550,000 preference shares of £1 each, and 550,000 ordinary shares of 15s. each. All the shares are issued and fully paid up. There are £79,600 debentures.

#### Directors:

THE RIGHT HON. THE EARL OF KINTORE, G.C.M.G. (Chairman).	
HON. HENRY GIBBS	F. A. KEATING
F. L. COX	G. MACFARLANE REID

**General Manager:** C. F. COURTNEY.

**Manager:** JAMES HEBBARD.

#### EARLY HISTORY.

The history of the Central mine furnishes a striking example of the vicissitudes and contrasts that characterise the lives of some mines. It is also not without its spice of romance. Its birth was fortuitous. The pioneers who originally pegged the hill did so unaided by theodolite or staff, and were hampered by the scrub that in those days covered the ground. As a consequence their lines were often awry, and it was found so in this case, when their pegging was confirmed by survey. The northern boundary of what is now the South mine and that of the Proprietary converged, leaving a wedge-shaped piece between. This was pegged and claimed by two identities—Tommy Nutt and Micky Farrell—and has since proved the lode-bearing area of the Central mine.

The first company formed was a limited liability one, who worked the oxidised zone with varying success. In sinking the first shaft, rich chlorides were struck, and a good lode of ore opened up. Smelters were erected on the mine, which, however, were never a conspicuous success. Metallurgical difficulties were constantly being encountered. At one time it was found necessary to purchase lead bullion to smelt their rich silver ores, and when these were practically exhausted, the irony of fate was shown in the discovery of a rich pipe or chimney of carbonate of lead, which, if discovered sooner, would have obviated the necessity for this purchase.

In the slump of 1892 the Company went under, and things were practically at a standstill, until after the strike in 1892, after which a reconstructed no-liability company of 150,000 shares of £1 each took charge of the property. Considerable developmental work was done under their regime, and the smelters were re-started in September, 1894, and were run with a fair amount of success on the low grade carbonate and oxidised ore still remaining, and on the rich sulphides opened up in the higher levels. The erection of a concentrating plant was contemplated to treat the sulphide ore, the success of which treatment was then being demonstrated by their neighbours, South Mine and Block 10.

In the early part of 1895, however, an influential syndicate approached the directors with an offer to buy the whole property, and, after considerable negotiations, a sale was effected at £175,000, which, with some accumulated profits, returned to shareholders 28s. per share. No doubt these gentlemen thought themselves well done by

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to receive this sum for shares that a few short months before were somewhat of a drug on the market, but they have probably since been considerably chagrined at subsequent developments.

The mine was taken possession of by the purchasers on October 2, 1895.

The purchase of this property was only part of a gigantic scheme, which had for its object the exploitation of a process invented and patented by Mr. E. A. Ashcroft, formerly electrician of the Proprietary. This was an electrolytic process for the extraction and recovery of the zinc, which up to then had been an unrealizable asset as far as Broken Hill was concerned.

With this object in view the Sulphide Corporation Ltd. was formed, with its head office in London. Their share register consisted of 1,100,000 shares paid up to £1—550,000 of which are preference shares, entitled to 10 per cent. before the residual ordinary shares are entitled to dividend, the actual cash for purchase and construction being provided by the preference shareholders. A large portion of this capital was spent in erecting immense works at Cockle Creek, near Newcastle, New South Wales, to smelt the lead and silver in the concentrates, and extract the zinc in the by-products that the Central mine was to supply.

On the Central mine an active policy was pursued. A large new shaft was sunk, winding engine and rock-breakers installed, and a large, up-to-date concentrating mill erected, the capacity of which was subsequently brought up to 5,000 tons per week. Shortly after the completion of these works Mr. C. F. Courtney was appointed manager of the Central mine.

The failure of the Ashcroft process to carry out in a commercial way the results obtained from preliminary trials rendered useless the greater part of the large plant erected at Cockle Creek, and proved

a great set-back to the Sulphide Corporation in its early stages. It also placed on the Central mine the duty of counter-balancing the loss thus sustained, and returning to the shareholders something in the way of dividends.

To this the mine responded splendidly, and, aided by a good lead market from 1897 to 1902, returned handsome profits. Mr. James Hebbard, formerly Government Inspector of Mines, the present manager, joined the Corporation in January, 1901, as Assistant Manager, and on the appointment of Mr. Courtney to the position of General Manager in 1902, succeeded that gentleman as Manager of the Central mine.

The fall in metals in 1902 was followed by the first of three disastrous creeps. This occurred in October, 1902, and close on its heels came the water famine in the winter of 1903. By strenuous efforts, however, the output was gradually brought up to almost the original tonnage, while the magnetic plant which had been erected previously was pushed to its fullest capacity.

An era of active constructional work was now entered upon. A new shaft was started east of the old one; preparations were made for the complete electrification of the plants by the erection of a central boiler plant and power station; the plant which had proved the value of the magnetic process for the extraction of the zinc from the huge dumps of tailings resulting from the wet concentration, was duplicated; the erection of the first unit of a plant to work a wet process for the extraction of zinc—which had given excellent results



General Exterior View of Minerals Separation Process Plant.

Kintore Shaft, Aerial Tramway and Winding Engine House.

experimentally—was put in hand, with the object of treating additional tailings; and the installation of the first section of a new concentrating plant was decided upon.

It was well that the foresight of the management had provided against the risk of further disturbance of the ore body by sinking the new shaft in safe ground, for, hardly had this been completed, when a second and more serious creep occurred in July, 1905, which completely wrecked both old shafts that had been sunk in the ore body, as well as the offices, store, and boiler plant, and had it not been that the new shaft, with its winding plant, connecting drives, and cross-cuts, was practically ready, the mine would have been shut down for a considerable period.

After a stoppage of some six weeks a start was again made, and gradually normal conditions were attained.

It was the intention to proceed with the new mill in sections, and gradually transfer milling operations from the old to the new plant, making such modifications and improvements in the latter sections as experience with the first would suggest. The need for thus hastening slowly is the more apparent when it is remembered that the treatment decided upon was in many respects novel, and the conditions set up without precedent on the Barrier, as it was proposed to treat the ore by jigging, and the Minerals Separation Process combined, and so, in one operation, extract the available metals.

But the best-laid plans "aft gang alee," and hardly had the construction of the mill been commenced when the disturbances underground, that had been for some time past causing considerable unrest and anxiety, culminated on May 30, 1906, in another creep, that completely ruined the old concentrating mill, and entirely suspended milling operations.

The main cause of these movements is the immense width of the ore body on the upper levels, and the weakness of the overlying arch of over-burden, which neither filling nor timbering can sustain.

This last creep was a crushing blow, for not only was the main source of income immediately cut off—and that when lead was at its highest—the profits from which treatment would have paid for the heavy constructional then under way—but the expense of re-opening the mine, and the subsequent enhanced cost of mining, was bound to prove a severe handicap to the Corporation.

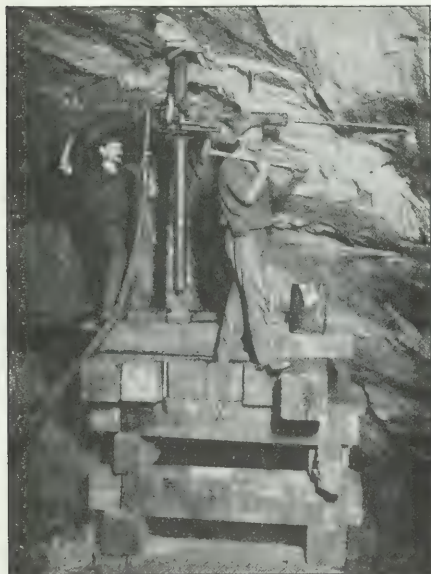
The questions of keeping the smelters going at Cockle Creek, and also of making provision for removing the ore broken underground in the process of re-opening the mine, were ones demanding immediate attention, and it was decided to erect a temporary ore-dressing plant, utilising that part of the old mill that was still intact, introducing grinding pans, and re-erecting the Wilfley tables on solid ground to treat the ore.

In the meantime the completion of all sections of the new mill were pushed forward with all haste. Progress was, however, hampered by various causes, and it was not until January of 1907 that the first section was started, the remaining three being put into commission in February, March, and May following.

Another result of these creeps was that, owing to the subsidence of the hill overlying the ore body, practically the whole of the surface equipment had to be removed to safe ground. So that it will be seen that the mine has been completely re-modelled during the past two years, and when it is considered that all this had to

be done in as short a time as possible, and under the unfavourable conditions of a short labour supply, high prices for machinery and material, and the curtailment of profits from production, it will be realized how severe the drain on the resources of the Corporation has been.

The great feature of the lode in the Central mine is the enormous mass of sulphide ore occurring in the relatively small lease. The greatest length of lode within this lease is on the 300 ft. level, yet above the 1000 ft. level considerably over five million tons of ore have been extracted or proven. Much of this enormous tonnage lies in the great hanging wall bulge, which is of such interest to geolog-



A Pair of Men Stopping with a Machine Drill in 825 ft. Section E Slope.

The machine is rigged on a bulk which rests on the mullock filling, and the men are engaged on boring a hole into the sulphides. One hole has been bored and its position is defined by the drill that projects from it. At the end of the shift the holes will be charged with explosives and fired.

N B—This Photo was taken in the "South" Mine



ists as the chief argument in favour of the saddle origin of the Broken Hill lode. This bulge or "saddle" crosses the boundary from Block 10 between the 500 and 600 ft. levels, and pitches south until just over the 700 ft. level. It then rises south until its broad cap reaches 50 feet above the 400 ft. level, and then changes its pitch once more, and goes downward over the South mine boundary on the 500 ft. level. The width across the lode in this bulge reaches in one place the extraordinary figure of 385 ft., and will probably be proved even wider.

The occurrence of such an enormous mass of ore within such narrow limits makes the problem of mining a regular output in any way proportioned to the reserves of ore one of exceptional difficulty. To further complicate the problem, the hanging wall is weak and treacherous, and often very flat, while the footwall, from the surface to the 700 ft. level lies on a great fault plane, which causes it to be exceedingly slippery.

It was in order to meet these difficult conditions that the stope and pillar system of mining was introduced, and there can be no doubt that, had the old haphazard system of working continued, the disastrous creeps which wrecked large portions of the mine in 1902, 1905 and 1906 would have occurred much sooner and with much more serious results.

Briefly, the stope and pillar system as used in the Central mine consist of dividing the lode transversely in strips or sections, each 50 feet wide (i.e., 50 feet in the direction of the length of the lode), extending from wall to wall. Alternate sections are mined out as stopes, the others being left as pillars to support the roof or "back."

The main shaft lies in foot-wall country, and is connected on each level by means of a cross-cut to a main haulage drive extending the full length of the lode, and lying in the country rock 50 feet or more from the foot-wall. This main drive is connected by cross ties with the different stopes. The shaft and the whole system of main drives and cross-cuts, including the main mullock pass, lie well clear of the foot-wall, and are thus perfectly safe from any disturbance by creeps.

The system of mullock filling of depleted area is very complete. In the past earth and rock were quarried on the surface and placed underground for the purpose, but of late years this has been unnecessary, as the various re-treatment plants have been producing an ample supply of barren tailings, which, mixed with the rock broken underground in the course of developmental work, make a splendid packing material.

The surface equipment, which is now practically complete, comprises briefly: Machinery requisite for the extraction of crude ore; central electric power station; machinery for crushing and delivering ore to wet concentrating mill; wet concentrating mill; various re-treatment plants.

#### **MACHINERY FOR ORE EXTRACTION.**

The mine equipment at Kintore shaft comprises a horizontal direct-acting coupled duplex winding engine, with cylinders 24 in. in diameter and a stroke of 48 in. The engines are constructed for a working pressure of 160 lbs. per square inch, the valve gear being of piston type, actuated by straight link motion, with double eccentrics reversed and controlled by a double-acting steam starting engine. Drums are 10 feet in diameter over kauri pine lagging. Brakes are operated by two steam single-acting engines, one for each brake—these engines being fitted with hunting valves, which automatically adjust themselves to correspond with the movement of the hand regulator on operating platform, so as to apply any desired pressure on the brakes up to the maximum exerted by the balance weights. The brake engines are employed to ease or remove the brakes, their application being accomplished by heavy balance weights. Reversing engine is of the vertical type, fixed in front of operating platform—the regulating handles of this and the brake engines being fixed on the operating platform conveniently for the driver. The engine is provided with clutch rings of strong design, operated by hand wheels of large diameter on the operating platform. The depth indicators are of the dial type. Main throttle valve is operated by a hand lever fixed to the same quadrant as the auxiliary engine reversing levers. This engine is from the works of Messrs. Thompson & Co., Castlemaine, Victoria.



**View of New Mill.**

Lead section with crude ore bins and serial tram in foreground. Zinc section in background.



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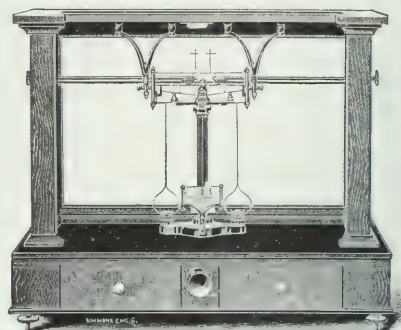
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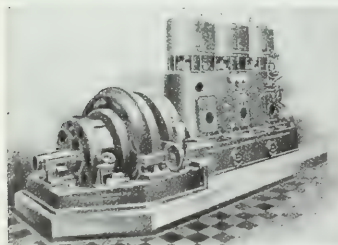


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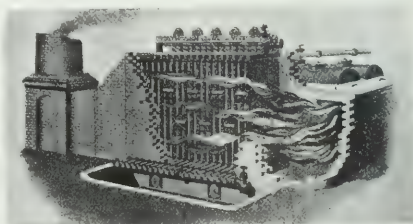
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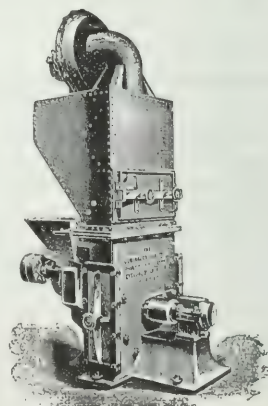
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Included in the mine plant is a Two-stage Coupled Corliss Air Compressor, also by Thompson & Co., cross compound of modern design. The air valves on suction side are mechanically operated, and steam valves are of the Corliss dashpot trip design. Capacity is 1700 cubic feet free air per minute, compressed to 90 lbs. receiver pressure. Steam cylinders are 16 in. and 26 in. diameter, and air cylinders of same dimensions, common stroke being 36 in. A steam re-heater is fixed between high and low pressure cylinders, and a horizontal tubular intercooler is filled between high and low pressure air cylinder.

### CRUSHING AND DELIVERING ORE TO WET MILL.

The crude ore from the mine is tipped into a storage bin at the shaft, from whence it passes from one or other of two Hadfield Gyratory Crushers, set side by side, with fast and loose pulleys, admitting of either breaker being thrown in or out of gear by the crusher attendant. Both breakers are driven by one 100 h.p. motor, with pulleys on either end of motor shaft. Each rock-breaker is capable of crushing 60 tons per hour from 12 in. to 1½ in. gauge. The crushed ore passes into the storage bins at the aerial tram loading station.

The wet mill is distant some 1,500 feet from the main extraction shaft, and the top of the mill storage bins some 40 feet above the mouth of the shaft. A straight line joining shaft and mill passes from the open cut over railways, dumps, and the various adjuncts to a re-

treatment plant. The aerial tramway has been equipped on the Bleichert system with rail tracks at loading and unloading stations, but with ropeways connecting same for full and empty cars respectively. The cars are equipped with Bleichert patent jaw grip coupling apparatus for automatically attaching and detaching from an endless hauling rope. The maximum grade on the line is at the loading station end, being a little in excess of 45 deg. from horizontal against the full cars. The tipping of the cars at the mill is automatic. The carrying ropes are 1,230 feet long, of locked coil construction, and of best quality cased steel, for the full cars 1 5-8 in. diameter, and for the empties 1 in. diameter. Traction ropes 5-8 in. diameter, of best quality plough steel. The capacity of the tramway is 90 tons per hour, the cars each carrying 15 cwt. net. The velocity of traction rope 1 metre per second.



Another Sectional View of the "Central" Mine.

The carrying ropes are provided with special ring-wedge end couplings for anchoring same at loading station end, and with special cast steel ring-wedge tension couplings for joining up sections of the rope.

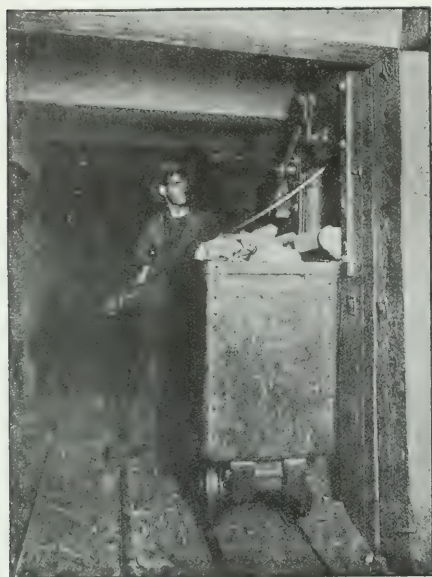
### CENTRAL ELECTRIC POWER STATION.

With one exception all the various milling plants receive their power by electric transmission from a central power station. The boiler installation at this plant comprises eight batteries of Babcock & Wilcox boilers, fitted with mechanical chain grate stokers and superheaters, aggregating 28,760 feet heating surface. Two motor-driven coal crackers reduce the lump coal to suitable size and deliver it into elevators, which convey the crushed coal into storage bunkers, from which an automatic feed is secured to the mechanical stokers. Slow speed vertical Weir pumps supply the boiler water, and the plant is in every way well equipped. Steam at 160 lbs. pressure is supplied to the engines, with 100 deg. F. of superheat. In the power plant are five generating sets each of 250 Kw. capacity, a D.C. set of 50 Kw., and a motor generator set. The air compressor is housed at one end of this building, and under the same roof is an electrical workshop suitably equipped.

Each generator set comprises a Belliss & Morcom high speed compound engine, direct coupled to a general electric A.C. dynamo, working at 600 volts, 40 cycles. The plant is in every respect thoroughly up-to-date, and has an electrical output of 1,340 Kw.

When completed the mill will have a capacity of 6,000 tons per week, but at present four sections **WET MILL.** only are equipped, their capacity being 4,000 tons of crude ore per week. These four sections are identical in design, and may be worked each independently of the other. A description of one section will suffice.

The crude ore—crushed at Kintore shaft to  $1\frac{1}{4}$  in. gauge—is fed automatically from the mill storage bins to an elevator, that delivers on to a grizzly set over a pair of coarse rolls at the top of the building. The over-size passes to the coarse rolls, and thence, with the under-size from the grizzly, on to a shaking screen. The under-size from the shaking screen (through 1-8 in.) passes to the classifier at the head of a May jig, and the over-size to the fine rolls, which latter deliver their crushed product by means of an elevator to a second grizzly set over the coarse rolls; thence to shaker as before, and on the jig. The first two



**An Ore-Trucker Underground.**

This shows the typical box truck, and the typical ore chute on the sill floor. The man is seen barring down a stone that has become jammed behind the door. This man's work consists of filling trucks from the chutes, and in pushing them to the shaft plat, where they are hauled to surface.

N.B.—This Photo was taken in the "South" Mine.

of the lead mill, and completes the metal extraction from the crude ore by the production of a high grade zinc concentrate.

The overflow from the two draining belts carrying the residues from the lead mill passes through a series of slime settling vats with filter bottoms. From these vats in turn the zincy slime is discharged, and, falling on to a conveyor belt that travels over the two incline conveyor belts conveying feed to the zinc plant, by means of suitable ploughs the zincy slime is fed continuously with the grainy residues into two sections of the zinc plant. This regular introduction of fine slime with the feed is an important factor in the success of the process, and enables the whole of the residues from the lead mill to be profitably treated in one continuous operation.

The overflow water from all concentrates and slime-settling bins flows into two concrete storage tanks of 350,000 galls. capacity, and is returned thence, after clarification, to a storage tank at the top of the mill by a Worthington turbine pump and an auxiliary volute pump, their total capacity being about 150,000 gallons per hour.

In general design the two sections of the zinc plant are similar to the minerals separation process plant mentioned elsewhere in these notes.

The whole of the machinery of this mill is actuated by electric motors supplied with current from the central power station.

It will be noted that this plant is unique in design, making, as it does, in one continuous operation, as marketable concentrates, a high recovery of the silver, lead and zinc contained in the ore.



## *Various Retreatment Plants.*

Apart from the ordinary operations appertaining to the mining and milling of crude ore—having for their object the production of a silver-lead concentrate—the Sulphide Corporation has for many years been equally concerned with the re-treatment of residues from such preliminary milling work for the recovery of zinc contents.

**MAGNETIC SEPARATION.** The first plant erected by any of the mining companies as an attempted solution of the zinc problem was started by the Sulphide Corporation on their Central mine in September, 1901. This plant was equipped with Mechernich Magnetic Separators, and proved such a success that a second plant of greater capacity was afterwards erected and equipped with improved machines, and put into commission in January, 1905. Both magnetic plants have given excellent results, and the machines are still in operation. As this method of treatment is not general on the field, a brief description may be of interest.

The various stages of the process comprise:—

- a. Drying the crude tailings.
- b. Preliminary sizing and crushing.
- c. Final classification.
- d. Separation by magnetic attraction.
- e. Wet treatment of so-called non-magnetic product.

(a) The crude material treated by the process is the grainy residue from the ordinary jigging and tabling of crude ore, containing approximately 7 ozs. Ag., 5 per cent. Pb., 19 per cent. Zn.

A horizontal belt conveyor is laid along the toe of the dump from which tailings are to be drawn off, and this conveyor is so constructed as to be free to turn about a pivot at the delivery end of the conveyor framework. Thus the whole frame carrying the 200 feet of conveyor is free to traverse a complete circle in azimuth, but for the obstruction offered by the dump. A hopper is mounted on rails on this conveyor frame, and can be placed at any required position along the conveyor. Into this hopper the crude tailings are shovelled from the toe of the dump. When along the whole length of conveyor the dump is some 5 ft. removed from the conveyor, the whole framework is gradually moved in towards the dump, turning about the delivery end as before-mentioned. When in the required position shovelling is resumed, or, if necessary, the feed may be maintained whilst the position of the belt is being gradually altered. This movable horizontal conveyor discharges on to a fixed inclined conveyor, that, in its turn, delivers its load to a revolving drier, where the 2 per cent. to 3 per cent. of moisture is eliminated from the crude. This drier is a revolving cylinder some 4 ft. in diameter and 35 ft. long, set at an angle of  $6\frac{1}{2}$  deg., and having longitudinal internal ribs to elevate the crude, and drop same repeatedly through the heated air as the crude gravitates towards the lower discharge end of the cylinder. Over the upper end of this cylinder, where the crude entered, is the stack that carries off the furnace gases laden with the moisture evaporated from the crude; at the lower end is the furnace discharging its gases through a short wrought iron box into the drier cylinder. This same box has a sloping bottom, securing side discharge for the dried tailings. It will be noted that the heated air and the moisture-laden crude, traverse the drier in opposite directions.

(b) Freed from moisture, the hot crude is passed by a scraper conveyor to the boot of an elevator discharging to the first nest of trommels. Here the crude is sized on  $2\frac{1}{2}$  m.m. screens, from which the over-size is delivered to a pair of 30 in. Cornish rolls for re-grinding, and returned thence to the same elevator and back to the same trommels. The under-size from these trommels passes into the plant by means of a second bucket elevator that delivers to a nest of four-wind separators. Here the finest of the crude—approximately from 180 mesh to dust—is separated out and delivered



General View of Magnetic Plant.

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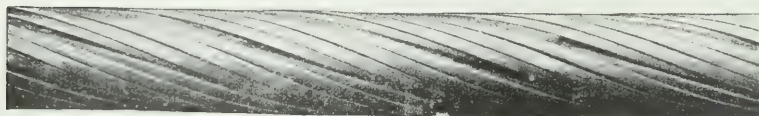


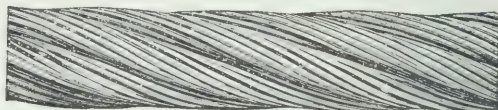
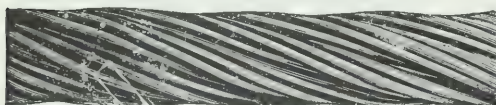
Photo. of Worn Rope from Australian Copper Mine, after 17 months' work in shaft, partly vertical and partly underlay, in two directions.

Photo. of Worn Rope from Australian Coal Mine after three years' work on an incline of 1 in 3.



References can be given to Companies where the above ropes work, and to Customers in all the States and N.Z.

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### CLEM. A. HACK, A.S.A.S.M.,

Mem. Aust. Inst. Mining Engineers.

Mem. Soc. Cham. Industry, of Victoria.

Patent Attorney

AND

Metallurgical Engineer.

63 Queen Street, Melbourne.

to a belt conveyor for transit to one group of separators. The coarser product from the wind separator classification passes to a second nest of trommels screening through  $\frac{3}{4}$  m/m. Thus the classification yields three grades of crude, viz.—through  $2\frac{1}{2}$  m/m. on  $\frac{3}{4}$  m/m. = coarse; through  $\frac{3}{4}$  m/m. on 180 mesh = medium; from 180 mesh to dust = fine—and these various grades are treated separately on separate groups of machines, being delivered to storage bins over the three groups of machines by belt conveyors.

(d) The magnetic separators are of the Mechernich type, latest design, with motor armature revolving horizontally between the poles of a strong magnet. The pole distance is easily adjustable. Controlling rheostats in field and armature circuits admit of large variation in intensity of field, or speed of armature, to suit the nature of the crude under treatment. The construction of the armature differs slightly in the different groups of machines. Looking at one of the machines in side elevation, the crude hopper is seen on one side of and above the armature, so arranged to discharge its crude in a regular flow along the whole length of the armature on its under-side. Passing beneath the armature as it rotates, the non-magnetic constituents in the ore slide past into one receptacle without being influenced by the magnetic field; other magnetic constituents cling to the roller for a shorter or longer period, according to the degree of magnetic susceptibility, and finally drop off when the particle has been carried such a distance from the pole that gravity overcomes the magnetic attraction. By arranging hoppers with adjustable guide vanes, the fan-like stream issuing from the rotating armature can be divided as desired. Thus the highly-magnetic **rhodonite** occurring in the tailings can be separated out as one product carrying over but a small percentage of zinc; the slightly magnetic **zinc blende** can be also collected as another product; and the non-magnetic galena with the quartz gangue—carrying only a small percentage of attached blende—forms still a third product of this magnetic separation, termed **quartz and lead**. This briefly is the rationale of the process. The success of the operation depends very largely upon good classification and regular feed. To secure the latter the feed hoppers each receive an intermittent motion by means of a pulsatory dynamo supplying current to electro magnets, the resulting vibratory motion of the hopper causing a very regular thin stream of feed to pass beneath the armature of the machine.



Magnetic Plant, showing Roaster.

There are two machine floors, each with its group of coarse, medium and fine machines.

As already remarked, the machines on the top floor give three products, viz., rhodonite, zinc concentrates, and "quartz and lead." The machines on the lower floor re-treat the "quartz and lead" from the top machines—group for group—producing on the lower floor a zinc concentrate which is mixed with the zinc concentrates from the top machine for shipping, and a poorer "quartz and lead," which still contains some zinc and much lead. This "quartz and lead" is passed on to an auxiliary jigging and tabling plant, where separate lead and zinc concentrates are produced.

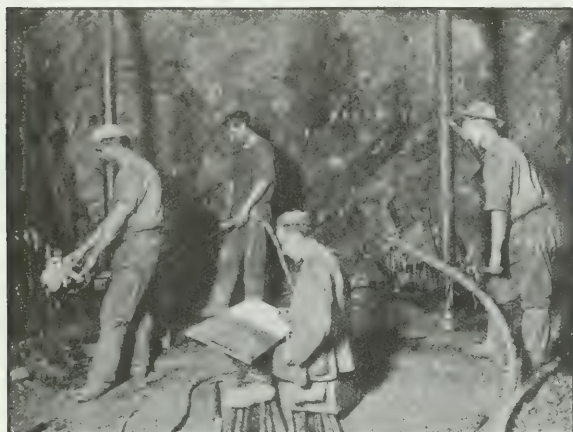
The rhodonite from the top machines, and the quartz tail from the jig plant, are used underground for filling depleted stopes.

Other belt conveyors traverse the plant below the machines, and the three products—zinc, quartz lead, and rhodonite—are delivered through rubber pipes from the various machines to these belts, which discharge their products where required—the zinc concentrate going into a storage bin alongside the railway line for despatch to smelters. In order to improve working conditions, two 6 ft. exhaust fans are continuously at work drawing off the dust from the various parts of the plant, besides smaller auxiliary fans. The dust so collected is driven into a wooden tower, suitably baffled, and, rising through a constant shower of water, is settled and carried to suitable tanks, from which the slime is periodically discharged.

(e) The wet treatment of the "quartz and lead" presents no special features of interest. The plant comprises two sand jigs, the first hutch giving a lead concentrate, the second and third hutch a zinc concentrate, the fourth hutch being usually returned by means of an elevator, the fifth hutch yielding a tail very low in metal value. A Wilfley table, receiving its feed from classifiers at the head of each jig, produces also both lead and zinc concentrates. The water from jigs, etc., after clarification, is returned by a 4 in. centrifugal pump.



The whole of the machinery in this plant is driven by various electro motors, receiving current from the central power station.



This picture shows a Machine Drill Party engaged on Driving a Crosscut 11 ft. wide by about 9 ft. high.

The Photograph was taken in the main E2 Crosscut at the 470 ft. level, at a time when special tests were being conducted on different brands of machine steel, and on different types of rock drills. The man in the foreground is the rock-drill superintendent, who is conducting the tests and taking notes of the work. The middle man in the face is directing the water jet, and divides his time between the two machines. The work in progress is the boring of the bottom holes.

N.B.—This Photo. was taken in the "SOUTH" Mine.

which the coarser grade is passed through a spigot into a second grinding pan, the finer material being upcast and carried to a draining belt (twelve pans are therefore in use). The product from the second pan of each set, when crushed sufficiently fine, rises towards the surface of the water in the pan, and is carried out by a series of high level discharge openings, and passes over the discharge apron to the draining belt above-mentioned. The slimey water flowing off the draining belt is elevated by centrifugal pumps to slime settling tanks, where the clear water passes to other pumps, and is returned to the pan circuit. The crushed product—through  $\frac{1}{2}$  m/m.—is delivered with its small percentage of moisture, together with a regular supply of slime from the slime-settling vats, by means of an inclined belt conveyor to the mixers.

The crushed crude passes through two series of six vats arranged in parallel, and, in passing, is thoroughly aerated by special agitation, and brought into intimate contact with the circuit liquor, to which oil and acid is added in the vats as required, the temperature being regulated as found desirable by the admission of steam. The effect of aeration under suitable conditions in the mixers is manifested by granulation of the metallic sulphides, so that when the granulated pulp passes out from the mixers to the spitz box, flotation of the sulphides is at once manifest, while the gangue sinks and is drawn off at the bottom of the box. Several spitz boxes are found to be necessary, these being arranged in series. In each case the sulphides form a scum on the surface of the liquor which is floated off, and delivered to concentrates-settling boxes provided with filter bottoms. When a box is full the flow is cut off, and the liquor allowed to filter through, after which the concentrate is thrown out on a draining floor, and thence loaded into trucks. From the third spitz box of the series the tail passes to an elevator, and is thus further aerated before delivery to the final spitz at the head of the elevator, whence the final tail passes to the residue bin. These residue bins are also provided with filter bottoms, and when filtered the residues are thrown on to a belt conveyor, which delivers over a pass from which sands are drawn off for mullocking the underground workings. This plant is electrically driven throughout.

An interesting feature of this treatment is that the very finest slime tends to maintain and improve the recovery of the zinc. The absorption of this slime has previously not been found possible by any other treatment.

### ZINC CONCENTRATION BY MINERALS SEPARATION PROCESS.

Some three years ago exhaustive experiments were made in the treatment of various ores, tailings and slimes by a new process, necessitating the liberal aeration of the crude under test by agitation in a liquor charged with acid and oil in suitable proportions. The excessively satisfactory results of a long series of tests carried out on the mine led to the construction of a plant to treat 1,000 tons of dump tailings weekly, this being the first application of the process on a commercial basis. Results proving satisfactory, the plant was extended, and is still in operation, effecting a very high recovery of metal value, and producing a high-grade zinc concentrate.

The general arrangement is as follows:—the crude tailings from the dump are hauled on an incline tramway, and tipped into a storage bin, from which the crude is delivered by automatic push feed to elevators discharging into launders, which distribute the feed over six Forwood, Down grinding pans. Each of these six pans discharges a ground product to an hydraulic classifier, from

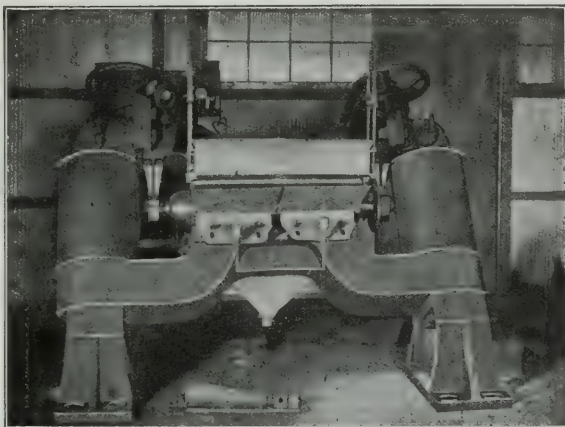
**SLIME PLANT.**

In addition to lending itself to the treatment of tailings, the same process proves equally successful in the treatment of fine slimes. A plant has, therefore, been erected to operate slime dumps, and, up to date, has produced a quantity of leady zinc concentrates which are now being despatched to the smelters. The crude slime, being of approximately equal value in both lead and zinc, gives a concentrate of high grade in both metals. This product is discharged to a set of alkaline mixers, and thence to a nest of Krupp tables in the breaking-down section, where a separation is secured, and the resulting lead and zinc concentrates pass to separate filter boxes, and thence to drying floors.

**The Outlook** of this mine is a favourable one. For years past, as will have been gathered from the foregoing history of the mine, the Company have been called upon to provide considerable sums out of the profits to cover capital expenditure, and last year had to provide £16,275 7s. 10d. for special expenditure, caused by creeps which had occurred in the mine.

After the completion of the new mill, the period of heavy capital expenditure came to an end, and the necessity of reserving large sums out of the profits ceased.

With the new facilities—the new plant—the well-known capabilities of the mine—and the present ruling prices, the Company should have a long life and a record one.



Mechernich Magnetic Separator.



View of Argent Street South in 1889.

It will be seen that the Council had already started Tree-Planting on each side of Street.

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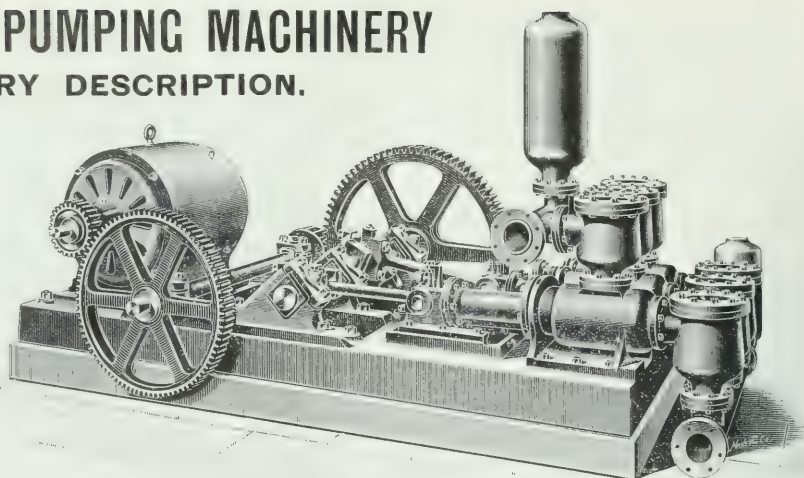
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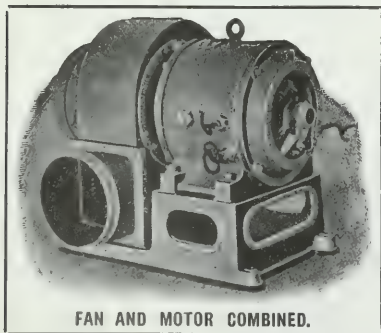
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General View of Block 14, showing Concentrating Mill, Power House, Cooling Tower, Winding Engine House, Poppet Heads, and Tramway.

## BROKEN HILL PROPRIETARY "BLOCK 14" COMPANY, LIMITED.

**CAPITAL:** The Capital of this Company is £155,000, in 100,000 preference shares of 6s. each, and 100,000 ordinary shares of 25s. each, both fully paid up.

### Directors:

ALEX. CAMPBELL (Chairman).

WM. BICKFORD

H. J. DALY

HARVEY PATTERSON

A. W. DOBBIE

HON. W. L. BAILLIEU

HON. B. A. MOULDEN

**General Manager:** JAMES HOCKING.

**EARLY DAYS.** Block 14 adjoins the ground of the Proprietary Company on the north-east, and was the first off-shoot from the parent mine floated into an independent company (1887). The property consists of one 40 acre block on the main line of lode, with a water right to another 40 acres on the flat ground to the eastward. In the nineties Mr. Zebena Lane (whose photo appears on page 21) was the General Manager. The mine experienced some solid hard times during the years 1901, 1902 and 1903, when it was found necessary to issue 100,000 preference shares at 6s. each, the capital derived therefrom helping to tide over impending difficulties.

The lode strikes north-east and south-west. The underlay is towards the north-west, and varies **THE MINE.** from nearly vertical to about one in one; the width varies from a few feet to (in one place) 200 feet.

An average width of formations now being worked would be about 30 feet. The chutes of ore appear to be fairly flat, and to have the vertical dimension small as compared with length. The grade of ore is not

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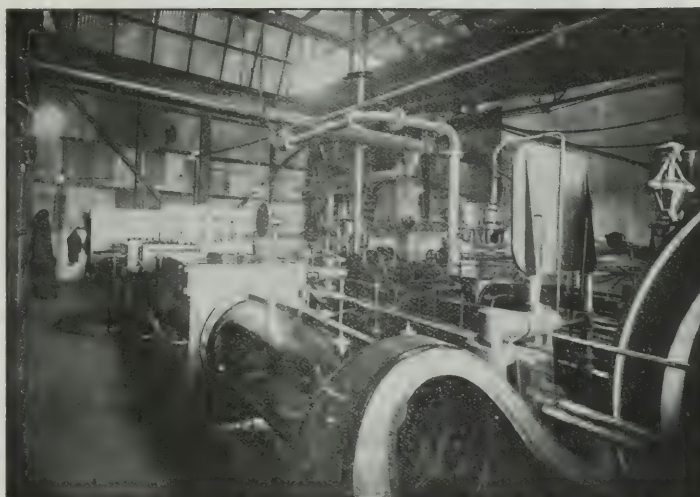
No Ice Chest Required if one of these in use.

uniform over large areas, but varies between wide limits—the pitch of the chutes is not well defined, but where it is best marked is towards the south-west—one chute of ore is known to be 500 feet long, although probably it may be twice that length. The minerals obtained are sulphides and carbonates.

The tonnage of sulphide ore mined (October 1, 1906, to March 31, 1907) was 37,974 tons; the average assay values being 12.54 per cent. lead; 9.98 ozs. silver; and 11.58 per cent. zinc. Favourable developments in the oxidised zone have produced results (in the same period) of 7,206 tons of carbonate ore, of an average grade of 34.6 per cent. lead, and 13.3 ozs. silver; while the prospects of maintaining this profitable output are distinctly improved. The ore now in sight may be taken as 5,000 tons, but there is every indication that, as developments proceed, reserves will be considerably increased.

The ore can be divided into two classes, Oxidised and Sulphide:

1. **Oxidised**—Consisting essentially of carbonate of lead, in an iron-stained quartzite gangue.
2. **Sulphide**—Consisting of sulphide of lead and zinc, usually intimately mixed, in gangues of quartz, rhodonite, and garnet sandstone, both varieties carrying silver in varying quantities.



Interior of Power House, "Block 14," displaying Air Compressor, Allen High Speed Engine, and Electrical Generator.

The country rock is mostly a hard, crystalline schist, traversed by numerous bands of quartzite, and by many igneous dykes consisting of quartz, mica, and feldspar, the mica often being scarce, and at times entirely absent.

Important additions and alterations have been made to the surface plant, and considerable developmental work has been carried out during the past two years. The mine is now equipped with a new lead mill, capable of treating 2,500 tons weekly, and also has an output of about 200 tons of rich leady carbonates per week. The additions to the plant erected during the last six months comprise: High speed Allen mill engine; Air compressor; High speed Allen engine, coupled to Siemens's generator; all of which are now at work under one roof, which has proved to be both advantageous and economical.

Mr. Herbert J. Daly, after an exhaustive examination of the mine, stated that, with a weekly output of 416.66 tons of concentrates, and the price of silver at 2s. 4d. per fine oz., and lead even as low as £10, the weekly profit would be £307.83.

The Company has sold its tailings, dumps and output of residues for nine years to the Zinc Corporation, at a price which should yield a satisfactory return. The present weekly tonnage is: Crude sulphide ore, 1,770 tons; crude carbonate ore, 400 tons; sulphide concentrates, 218 tons.

## The Outlook.

From the last official report (March, 1907) we find the Company enjoyed an exceedingly prosperous half-year, and were in a sound financial position, the net profits for that period being £53,246, or an increase of £29,934 over the previous half-year. Two dividends were paid, equalling £20,000, while a reserve fund of £30,000 was created and placed at fixed deposit, bearing interest at the rate of 3 per cent. per annum. Since the report was published, the mine has shown out well. Already this year over £30,000 has been paid in dividends, and, with the present ruling prices and able management, the mine has nothing to fear.



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General View of the "British" Mine, 1907.

---

**THE**  
**"BRITISH" BROKEN HILL PROPRIETARY COMPANY**  
**LIMITED.**

---

**CAPITAL:** The Authorized Capital of this Company is £264,000, in 240,000 shares of 20s. each, and 60,000 privileged shares of 8s. each; all being issued and fully paid up.

**Directors:**

J. S. SMITH-WINBY (Chairman) ALEX. STEWART, M. Inst. C.E. F. S. SAUNDERS	{ (London)	W. H. WOODHEAD DR. WILLIAM BARLOW W. J. MAGAREY P. WAITE, J.P.	} (Adelaide).
--------------------------------------------------------------------------------	------------	-------------------------------------------------------------------------	---------------

**Manager:** J. SAMPSON.

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**EARLY HISTORY.** The British mine consists of two blocks, lying immediately to the north-east of Block 14, and comprises 102 acres. The Company was registered on November 11, 1887, to acquire these blocks of the Proprietary Company, the original capital being £1,200,000, in 240,000 shares of £5 each. The lease was renewed for 20 years, from December 31, 1904, conditionally on the payment of 1 per cent. royalty (payable to the New South Wales Government) on profits up to £200,000. Although nominally a British Company, and possessed of a Board of Directors in London as well as here, the major portion of the shares are held in Australia. The working capital of £125,000 having been expended, a further sum of £120,000 was raised by the issue of additional shares. Mr. John Howell, the then General Manager, appears in a photographic group on Page 21.

**THE MINE.** Though the Company had a somewhat chequered career at the outset, it has paid nearly a quarter of a million in dividends. In July, 1901, it was deemed necessary to close down the mill, owing to the then price of lead, £12 5s. per ton, not allowing a margin of profit. Between this date and March, 1903, when the mill was re-started, development and exploring work were carried on. Since then work has practically proceeded without interruption.

The principal work on the mine had previously been confined to Block 15, the lease on which the mill is situated, but of recent years Block 16, or Marsh's section (which had only been worked on a very limited scale) has

received much attention, and a magnificent body of friable, free milling sulphides has been disclosed, which should eventually yield large returns to the Company.

Very great improvements have recently taken place on the property. A total of £33,463 was spent in additions to mine plant, the chief additions being a Reidler compound air compressor of 40-drill capacity; five Babcock and Wilcox boilers, each of 2,852 square feet H.S.; a No. 5 Austin rock-breaker, 50 tons per hour capacity; two No. 5 Krupp ball mills, and four Card concentrating tables. The aerial ropeway and accessories (the latter consisting of bins, unloading stations, &c.) connects Marsh and Thompson shafts on Block 16 with ore bins at Blackwood shaft on Block 15. The total length of ropeway is 2,750

feet; maximum capacity, 50 tons per hour, with speed of 400 feet per minute, using 15 h.p., the ropeway being built on the Bleichert system.

Projected work comprises the sinking of Thompson shaft from the 470 ft. level to the 800 ft., and to make a connection with Howell shaft at this level, and the erection of new mill engine and new shipping bins for concentrates.

The Company has sold its tailings and slimes dumps for three years to the Zinc Corporation, and out of the profits from this sale it is proposed to spend a large sum of money upon further development work, and to replace some of the engines and plant with some of a more modern and efficient character.

The weekly output averages about 3,200 tons.

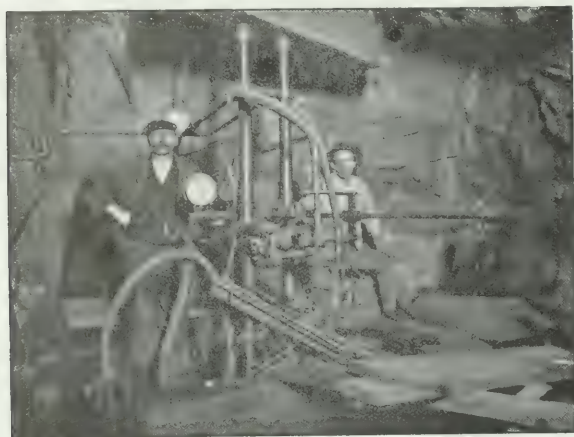
## *The Outlook.*

The future outlook of this Company is in every way highly satisfactory. Although without any figures to show for the first half of the current year, judg-

ing from the figures of the three previous years (see below), and taking into account the extra tonnage put through, coupled with the present high price of metals, the shareholders should, with confidence, look forward to a good dividend-paying season.

In 1904 the gross profits of the Company were £41,405, and the net profits £33,651

.. 1905	..	..	..	..	..	£80,772	..	..	£71,197
.. 1906	..	..	..	..	..	£95,879	..	..	£84,878



This shows a Diamond Drill at Work on the 825 ft. Level.

The machine is driven by compressed air, and the rods pushed forward by hydraulic pressure, supplied by a little pump seen under the drill. The man on the right is the diamond drill superintendent, the one in the middle the driver of the machine, and the one on the left the laborer, who assists in the withdrawal of the rods.

N.B.—This Photo, was taken in the "South" Mine.







**BROKEN HILL "JUNCTION" MINING COMPANY,  
NO-LIABILITY.**

**CAPITAL:** The Capital of this Company is £100,000, in 200,000 shares of 10s. each, paid up to 9s. 6d.

**Directors:**

J. R. BAKER (Chairman).

HON. A. R. ADDISON

P. ROACH

**General Manager: J. H. STOCKDALE.**

**Manager:** JOHN EVANS.

**EARLY HISTORY.** The "Junction" was first known as the Great Northern Junction, and leased by Penglase and Carson. It consisted of two blocks, containing in all about 51 acres of ground. The mine was greatly mismanaged at first, and it was not until Mr. William Adams, formerly of Te Aroha, New Zealand, assumed command of the Junction, in 1890, that matters progressed satisfactorily. The first dividend was declared in November, 1890, and the Company has paid away in all £81,750. For photo of this mine in the early days see Page 22.

**FIRE.** In the middle of February, 1906, a fire broke out in the mine. Owing to the smoke and gas penetrating adjacent workings, the fire affected the British, Junction North, and North mines, and conflicting interests arising out of the attempts made to extinguish the fire, a trust was formed between the companies affected. After eight weeks' work, however, and the expenditure of nearly £4,000, the fire was still burning. The trust was then dissolved. The mine was flooded, which soon extinguished the flames. The unwatering then started, and it was completed about the middle of July. Of late, work underground has been wholly developmental—as the water was lowered, the necessary repairing of shafts and drives was effected. Browne's section was undamaged, but McIntyre's section suffered from collapse, owing to the incomplete filling of the old stopes, and to the burning out of the timbering. This shaft was considerably crushed, and during the progress of operations against the fire it was found advisable to prohibit its use as a travelling way for men. During the latter part of the year some exploratory work was carried out, giving improved prospects to the mine. Browne's shaft was deepened to 888 feet, and will be continued down to 1,000 feet. For most of the time the mill was re-treating portion of the old dumps, to recover some of the lead, to increase the zinc value of part of the residue, and to obtain a waste only good for filling the depleted ground. Ore-winning operations have re-commenced, and the mill is now operating on crudes to a tonnage of 1,500 per week, and concentrates 200 tons weekly.

On the tailings dumps there are 200,000 tons worth: Lead, 7 per cent.; silver, 7 oz.; and zinc, 14 per cent.

**OUTLOOK.** We have already seen what this mine is capable of doing. Although the underground fire of last year proved a great set-back, the mine is still the same, the ore is still there, rich ore in some places, and should nothing unforeseen happen, under the present able management and the high ruling prices it should soon prove to be a dividend-paying concern.

# WILLIAM BRINDAL,

Telephone 629.

Member Stock Exchange of Adelaide, Ltd.

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Stock and Sharebrokers,*

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Statements, Settlements, Promptly Executed.



General surface view of the "Junction North" mine, looking East.

## BROKEN HILL "JUNCTION NORTH" SILVER MINING COMPANY, NO-LIABILITY.

**CAPITAL: £180,000, in shares of £1 each, fully paid up.**

### Directors:

W. J. HOGAN (Chairman), Cobarr. N.S.W.	
ALFRED RIGBY (Bathurst)	WM. McPHERSON (Sydney)
ALEX CAMPBELL (Melbourne)	G. A. GRANT (Melbourne)

**General Manager: THOMAS HENRY PALMER.**

**Secretary: HUGH G. FINLAY (Sydney).**

**Accountant: ROBERT ROSS, A.F.I.A.**

**EARLY HISTORY.** This mine, which has had a chequered career from the year 1897, comprises 40 acres, and adjoins the Junction immediately on the north, but can hardly be reckoned on the main line of lode, which bends round in a north-easterly direction, and enters Block 16 of the British. That there is plenty of good payable ore in the mine has been proved beyond doubt, by the dividends paid before 1897, which amounted to £25,000; but this mine has been unfortunate in having to fight against difficulties other than her own. The mine started concentrating in August, 1898, but had to close down from February 27, 1901, to February 6, 1905. First came the direful effects from the "Junction" creep—the failure of costly experiments with magnetic separators—the terrible effects from the fire in the sister mine, "The Junction"—followed by the failure of the shaft between the 450 ft. and 570 ft. levels.

Early in 1906 trouble was experienced from the crushing of the shaft timbers, and after the flooding to extinguish the fire, it was found necessary to re-timber and enlarge the shaft from the 150 ft. to the 600 ft. distances. Other than the displacement of "filling" and the timber bulks, very little damage was caused in the stope workings by the action of the flood-water. At this time the mine sold 50,000 shares at 12s. 6d. each, and from the money de-



# MOTTERAM & WILLIAMSON

ESTABLISHED 1892.



*Biscuit Manufacturers,*  
**ADELAIDE.**

rived therefrom added largely to its milling power. The old mill, which was in use before the outbreak of the underground fire, was dismantled, and the whole scheme of the plant re-arranged. An additional May's compound double



Concentrating Mill "Junction North" looking North.

plunger jig and two five-foot grinding pans of the Watson Denny type, and new rolls were included in the plant, giving it a larger capacity than the old mill. Other improvements included a travelling conveyor from shaft to mill, storage bins and breaker station, new boilers, superheater and condenser, and a new change-house.

The ore body exists in the Company's lease, by reason of the westerly underlay out of the British, North, and Junction blocks, and enters the property diagonally at a depth of 420 feet.

The No. 5 level—508 ft.—is about 100 ft. long. Each successive level gains about 100 ft. in length on account of the continued underlay. Thus the No. 9 level is over 500 ft. long. Levels are opened at 1,034 and 1,134 ft., but the full lengths have not been driven

on. The lower levels show large increases in width, and the developments now going on at the No. 10 level show the body to average at least 60 to 70 ft. wide, with undiminished values for a length, so far as proved, of 400 ft.

At the No. 11 level very little work has been done, but the cross-cut proves the body 63 ft. wide, and the hanging wall has not yet been reached. A band of low-grade rhodonite, however, 23 ft. wide, divides the body into two makes of ore. This level is now under water pending the installation of electric pumps.

The shaft, which was thoroughly overhauled and re-timbered about 12 months ago, is now perfectly secure and suitable for an output of 2,500 tons of ore weekly.

A great deal of development work is going on, and large additions are being made to the ore reserves.

The ore, which **TREATMENT.** contains larger proportions of rhodonite and garnet sandstone than any other mine in Broken Hill, requires a special form of treatment that has been developed for it. The



The North Drive from 10-20 Sills, Junction North Mine.

high specific gravity of the gangue, and the relatively low specific gravity of the concentrates permits of a very small working margin for concentration by ordinary methods. It has been found, however, that the most refractory portions of the ore contain a small percentage of light gangue. This light gangue, being softer than the rhodonite, can be partially separated from it by screening, and the values, being soft minerals, can likewise be partially separated, so, by double screening in the initial crushing, about one-half the values are rescued from the rhodonite, and exist as a product eminently suitable for treatment by oscillating tables. The other half of the values remaining with the rhodonite are treated on jigs, from which middlings are re-ground, and finished on Wilfleys, Krupp tables, and vanners.

Special features in the mill are:—

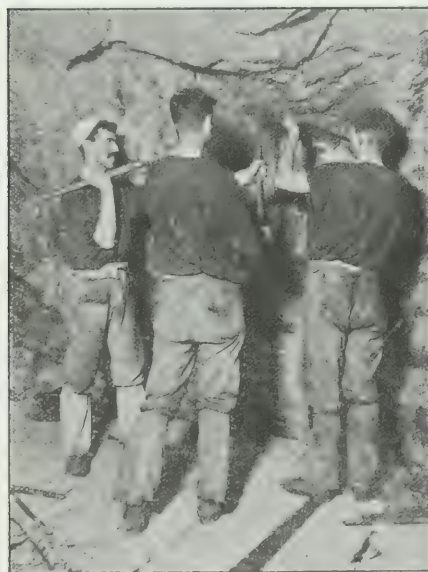
1. The "out-of-balance" shaking screen.
2. The type of vanner in use.
3. The water clarification and slime collection scheme, all of which have been designed by the management.

The mill is built in two sections, both of which are now running. The total capacity will, before long, be brought up to 2,500 tons weekly.

## THE OUTLOOK.

Taking the official balance-sheet as a guide, the Company stands financially sound, and with good future prospects. The present weekly tonnage consists of 1,500 tons of crude, and 250 tons concentrates, both of which are increasing weekly; while the Company have over 120,000 tons of tailings on the surface, averaging 9 per cent. lead, 8.1 ozs. silver, and 12 per cent. zinc, and it is intended to erect a re-treatment plant

to deal with these at an early date. The ore is in the mine—the prospects are healthy and good—and under the present able management should spell success.



This shows the Stopping of Ore by a party of men on Hammer and Drill, and was taken in Section A, 525 ft. Level.

As this stope is very near the Central boundary, and therefore in the vicinity of crushed ground, it is not advisable to work machine drills. The one holds the drill and turns, while the two others strike in alternation.

N.B.—This Photo was taken in the "South" Mine.



An Underground View of the Plat at the No. 1 Shaft on the 625 ft. Level.

The photograph only includes the two hauling compartments, the pump and ladder-way being further to the right. The second man from the right side is the platman, he has his right arm on the front bar of the cage.

N.B.—This Photo. was taken in the "South" Mine.





Panorama View of "North" Mine from the Western side of hill.

## NORTH BROKEN HILL MINING COMPANY, NO-LIABILITY.

**CAPITAL:** The Capital of this Company is £140,000, in 140,000 shares of £1 each,  
all fully paid up.

### Directors:

W. L. BAILLIEU  
ALEX. CAMPBELL

W. M. HYNDMAN (Chairman).

HAL. SHEPPARD  
T. LEARMOUTH

H. J. DALY

The Company is Registered in Melbourne, while Mr. Clark acts as Local Director in London.

**General Manager:** MR. GEORGE WEIR.

### EARLY HISTORY.

The mine originally pegged out by Otto Fischer, and named by him the Cosmopolitan, consisted of one 40 acre block. No. 17, on the main line of lode, adjoining the British Company's Block 16 on the north, with a water right on Blocks 77 and 68 lying to the westward. The

North mine now covers an area of 191 acres in mineral leases 17, 43, 68, 77, and 215, although the mining of the ore is at present confined to the first two named leases.

The mine became the property of the Broken Hill North Company in 1895, but in its early days had a most chequered career, and was shut down for three years prior to March, 1904. The Company was recently re-formed, 26,000 shares were sold in London at a price equal to 32s. for the old shares, the money raised being ear-marked for the purposes of sinking a new main shaft to 1,600 ft., and raising the capacity of the milling and concentrating plant to enable the output to be increased from about 1,800 tons to 4,000 tons per week. The Company had in hand between £35,000 and £40,000 for carrying out this work; a big scheme of development was in progress, and under this progressive policy the mine has now become one of the front rankers.

### THE ORE OCCURRENCES.

The ore occurs in two pipes or shoots known as the Southern and Northern ore bodies. The Southern ore body has been developed from the 400 ft. level to the 950 ft. level, and the explorations in the adjoining mine have proved the continuance of this body for at least a further 200 ft depth, viz., 1,150 ft. The strike of the ore body, and the pitch of the ore shoot from

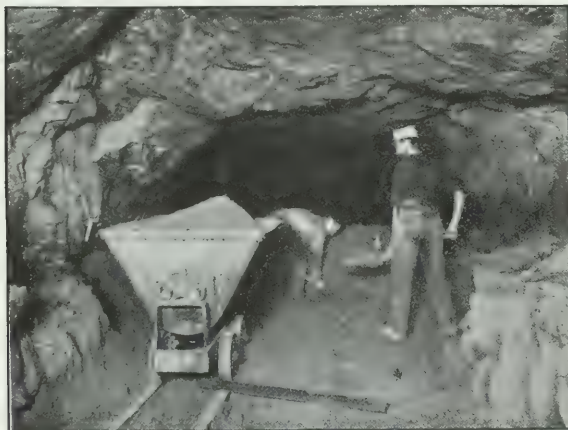
the adjoining mines into this Company's leases, are both extremely regular, as may be seen from the Company's published plans, and from the development work accomplished on the 950 ft. level, where a cross-cut is now being driven across the lode.

On the 500 ft. level, where a stope has lately been opened up, the width of ore so far exposed is 56 feet without any definite hanging wall.

On the 800 ft. level the length of the ore shoot inside this Company's ground is 450 ft.

On the 950 ft. level, where a cross-cut is being driven from the bottom of a blind shaft, 46 ft. of ore has been passed through without sign of hanging wall.

The northern ore body is entirely within the Company's leases. It was very narrow in the upper levels which were worked in the early days, but as each succeeding level has been opened up, the width and extent of the ore shoot has materially increased until on the 700 ft. level the length is 480 ft.



Taken underground in June, 1906, showing two mullockers engaged in cleaning up one of the main drives.

Early in 1906 the mine was flooded to drown out the fire. The effect of the flooding was to fill the drives with tailings and mullock washed down from the stopes, and the picture gives an idea of the work that had to be faced in the mines' re-opening.

drive on the 800 ft. level to end of ore body, and connecting with cross-cut at Victoria shaft; and the exploration with diamond drill at various points in mine.

For the three years ending June 30, 1907, £137,440 was paid in dividends, which includes £42,000 paid in last half-year. The policy pursued is vigorous development, extension of milling operations, and equipping the mine with the best possible plant.

**PLANT.** A large new main shaft, measuring 13 ft. 8 in. by 9 ft. 6 in. inside timbers is in course of sinking, and is now down 906 ft., large plats having been cut at the 700 ft. and 800 ft. levels. The shaft will be carried down to 1,000 ft., when cross-cutting will be commenced at the 950 ft. level, and the north and south ore bodies speedily opened up. The poppet heads at the new shaft are practically completed.

The massive foundation for the new large winding engine (built by Fraser & Chalmers, London) are completed and ready to receive the engine, which has lately arrived. Engineering and wood-working shops have been built, and both equipped with the necessary machine tools.

An entire new boiler plant is under erection, consisting of four Babcock & Wilcox water tube boilers, each of 3,140 square feet of heating surface, fitted with superheaters and mechanical stokers. The iron chimney stack, 8 ft. diameter by 130 ft. high, has been made in the mine workshop, and the erection is practically complete.

Stopes are being opened out on the 800 ft. level, and so far everything points to large ore reserves being developed. At the Victoria shaft a cross-cut is being driven out from the 800 ft. level to connect with the main northern drive.

From the half-yearly report to June 30, 1907, just published, a conservative estimate of the ore reserves above the 800 ft. level is given as 487,000 tons, and, judging from the work already accomplished on the 950 ft. level, and always assuming, of course, that the ore bodies live down and retain their same average width and length, the 150 ft. lift should add 100 per cent. on to the ore reserves, or make a total of about 950,000 tons.

From the same half-yearly report it is stated that the more important development work in progress is: The sinking of the new shaft to 1,000 ft.; cross-cutting at the 950 ft. level and opening out the ore bodies at that depth; cross-cutting and driving on the lode at the 950 ft. level, from the bottom of the central mullock winze and No. 15 winze; the continuation of the northern

A 100 kilowatt electric power and lighting plant has been erected, together with a surface condensing plant, and this will possibly be supplemented by an additional plant of 400 K.W. The working costs for the last half-year are as follows:—

Mining, 12/2.8 per ton of ore.	Total Milling and Mining, 16/11.4 per ton of ore.
Milling, 4/8.6 per ton of ore.	Development, 2/11.7 per ton of ore.
Total Working Costs per Ton of Ore treated .. . . .	£1 0 0
" " " " of Concentrates produced .. . . .	£5 14 7
" " " " of Lead (in concentrates) produced .. . . .	£8 3 11

The increase in mining and milling costs above, to the previous half-year, is entirely due to the increased wages paid during that period, and the development costs are naturally heavy owing to the large amount of developmental work accomplished.

The gross value of Output for Half-year ending	December, 1904 .. . . .	£47,212
" " " "	June, 1905 .. . . .	£47,592
" " " "	December, 1905 .. . . .	£74,185
" " " "	June, 1906 .. . . .	£36,595*
" " " "	December, 1906 .. . . .	£90,827
" " " "	June, 1907 .. . . .	£110,978

\*In consequence of the underground fire which broke out in the "Junction" mine in February, 1906, and the consequent flooding of the northern group of mines, both the mine and mill were shut down for about four months, although mining operations were practically stopped six months. This mine was flooded to the 450 ft. level, and ore-winning operations were not properly resumed until July.

The mine has a contract with the De Bavay Treatment Company, who have erected an extensive plant on the mine, in connection with the treatment of the thousands of tons of zinc tailings and slimes dumps, and which will undoubtedly prove highly satisfactory to the shareholders, although the Company's contract price for the tailings has not been disclosed. The present weekly tonnage is: Crudes, 2,360 tons; Production Concentrates, 420 tons.

## The Outlook.

Probably there are few mines with a better outlook than the "North," which promises in the near future to be one of the most valuable on the field. From the official report, published June, 1907, we find the liquid assets of the Company totalled £61,050, while the profits are good—the dividends are regular—disclosing a highly satisfactory state of affairs. Since the issue of the report a dividend of 2s. 6d. per share, equalling £17,500, has been declared, all of which go to prove that the mine is under able management.



North Mine Engineering Workshops.

DeBavay Zinc Mill.

Engineering Workshop.

Air Compressor House.





General View of "South Blocks, Ltd." Mine.

## BROKEN HILL SOUTH BLOCKS, LIMITED.

**CAPITAL:** The Capital of the Company is £200,000, in 200,000 shares of £1 each, all fully paid. Lake View Consols Company have purchased 100,000 shares, or one-half interest, for £73,500, of which £50,000 is being applied to working capital.

### Directors:

F. A. GOVETT (Chairman).

TYNDALE WHITE

CHAS. LLOYD (Secretary)

**General Managers:** MESSRS. BEWICK, MOREING & CO.

**Manager:** J. A. DIGGLES.

**THE MINE.** The property acquired from the Broken Hill South Blocks, No Liability, of Victoria, under the terms of an agreement between that Company and Broken Hill South Blocks, Limited (the present Company), dated December 15, 1905, consisted of four mineral leases, numbered 5, 6, 87 and 88, having a total area of 160 acres, situated to the south of the "South" mine—cash—ore at grass—and certain plant and machinery. The purchase consideration was £200,000, in 200,000 fully paid up shares of £1 each, being the whole share capital of this Company, and an undertaking to pay the liabilities of the vendor Company. After payment of those liabilities, the working capital available for the purposes of this Company amounted to £47,554 9s. 9d.

**DEVELOPMENT.** Operations have been confined to sinking a new shaft and the erection of a concentrating and surface plant to deal with a large weekly output. Underground development has been restricted to levels Nos. 1 and 2, and in connecting No. 1 level with the surface for refilling purposes when stopping operations are commenced on a large scale. The new main shaft, 12 ft. by 5 ft. in the clear, has been sunk on the east side of the lode to a depth of 301 ft., and it has been connected with the No. 1 level (115 ft.) and the No. 2 level (292 ft.), which were driven by the old Company. The shaft has been provided with ore-bins at these levels.

**ORE EXTRACTION.** The shipment of carbonate ore to smelters was commenced in August, 1906, and altogether a total tonnage of 5,735 was despatched from the mine, the average assay value being 32.37 per cent. lead, 5.38 ozs. silver. The mill for the treatment of sulphide ore started work in February, 1907, the total quantity of ore delivered to the mill being 7,747 tons, the average assay of which was 19.76 per cent. lead, and 3.34 ozs. silver per ton. The profit and loss account shows a profit of £4,545 15s. 11d. (from the inception of the Company to March 31, 1907—17 months), after having been debited with : (1) All the mining and other expenses in Australia and London; (2) the whole of the preliminary and other expenses incidental to the formation of the Company; and (3) the sum of £3,486 12s. 11d., being the expenditure on mine development, buildings, plant and equipment, in excess of the before-mentioned working capital.

Owing to the difficulties inseparable from the first work of a new plant, the results have not yet reached the efficiency expected, but since last March steady improvement has been shown in extraction, and it is believed that the monthly tonnage treated will be considerably increased. The results since the 31st March are as follows:—

	Tons.	£	£	£	£	£
April . . . . .	5,988	9,270	5,382	3,888	2,544	1,344
May . . . . .	6,469	11,466	5,786	5,660	1,189	4,471
June . . . . .	6,910	12,661	6,227	6,434	1,236	5,198
Total . . . . .	19,367	33,377	17,395	15,982	4,969	11,013

By the foregoing it is to be seen that the mine is on the right side of the ledger and steadily progressing, and under the present management the future prospects are both healthy and encouraging.



The subsidiary mines on the Barrier are: The Pinnacles, New White Leads, B. H. Consols, South Blocks Extended, Argus, North Extended, Globe Freehold, &c., and closely connected with the mining industry are the companies that have been formed with the object of treating the zincy tailings and slimes dumps, viz.: The Zinc Corporation, De Bavay's Treatment, Gillies Zinc Process, &c.

It is estimated that the accumulated zincy residues on hand at the various mines exceeds **Seven Million Tons**, and calculating at a low average assay of Lead 6 per cent., Silver 6.3 ozs., Zinc 19.1 per cent., the result should yield handsome returns, and prove a big asset to the mining companies, as well as increase the amount of dividends to the shareholders.

# THE BROKEN HILL MINES. JUNE 30, 1907.

MINE	Authorized Capital.	Shares.	Value.	Paid up to	General Manager.	Manager.	No. of Men Employed	Wages Paid Fort-nightly	Lowest Depth of Shaft	Dividends paid from inception of mine to June, 1907.	Total Out-put from June, 1907.
	£		£ s. d.	£ s. d.				£	Feet.	£	£
Proprietary Block 10	384,000 1,000,000	900,000 100,000	8 0 10 0 0	8 0 9 13 0	G. D. Delprat V. F. Stanley Low	E. J. Horwood	4,850 700	26,200 4,400	1,287 1,615	11,136,000 1,080,000	30,161,914 3,241,253
South	200,000	{ 126,812 73,188	1 0 0 1 0 0	1 0 0 1 0 0		W. E. Wainwright	1,145	6,800	1,315	505,000	2,721,567
Central	962,000	{ 550,000 Pref. 550,000 Ord.	1 0 0 15 0 0	1 0 0 15 0 0	C. F. Courtney	James Hebbard	1,150	7,600	1,340	446,875 to June, 1906	1,920,623
Block 14	155,000	{ 100,000 Pref. 100,000 Ord.	6 0 0 1 5 0 0	6 0 0 1 5 0 0	Jas. Hocking		400	3,160	675	404,327	3,043,235
British	264,000	{ 240,000 Old 60,000 New	1 0 0 8 0 0	1 0 0 8 0 0	W. H. Woodhead	J. Sampson	650	4,000	830	315,000	1,969,700
Junction	100,000	200,000	10 0	9 6	I. H. Stockdale	John Evans	310	2,000	900	81,750	277,756
Junction North	180,000	180,000	1 0 0	1 0 0	T. H. Palmer		346	2,300	1,150	25,500 Lasting April, 1907	407,391
North	140,000	140,000	1 0 0	1 0 0	Geo Weir		611	3,900	906	137,440 3 years to June, 1907	407,391
South Blocks, Ltd.	200,000	200,000	1 0 0	1 0 0	Bewick, Morsing & Co.	J. A. Diggles	270	2,200	950	Nil.	46,456

## Leading Sharebrokers.



**Wm. Brindal,**

**Grenfell St., Adelaide.**

See Page 86.

**Dempster, George C.**

**Argent St., Broken Hill.**

See Page 82.

**Kleinhammer, J. C.**

**Argent St., Broken Hill.**

P.O. BOX. 139.

**Stephens & Bartlett,**

**SHAREBROKERS, AUCTIONEERS, AND  
GENERAL COMMISSION AGENTS,**

Representing CLARKE & Co., of Adelaide.

**Broken Hill.**

**White & Hosier,**

**Blende St., Broken Hill.**

See Page 82.

**Wilkinson, W. B.**

**STOCK AND SHAREBROKER**

(Member Stock Exchange of Adelaide, Ltd.).

**Brookman's Building,**

**Grenfell St., Adelaide.**

**Yates, Geo.,**

**Argent St., Broken Hill.**

See Page 86

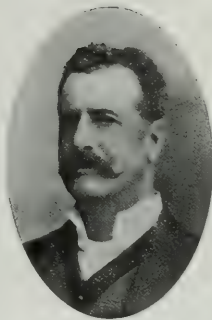




# Mine Managers of the Present Day. 1907.



JAS. HOCKING,  
General Manager,  
"Block 14."



C. F. COURTNEY,  
General Manager,  
"Central."



V. F. STANLEY LOW,  
General Manager,  
"Block 10."



GEO. WEIR,  
General Manager,  
"North."



J. H. STOCKDALE,  
General Manager,  
"Junction."



G. D. DELPRAT,  
General Manager,  
"Proprietary."



T. H. PALMER,  
General Manager,  
"Junction North."



JAS. HEBBARD,  
Manager,  
"Central."



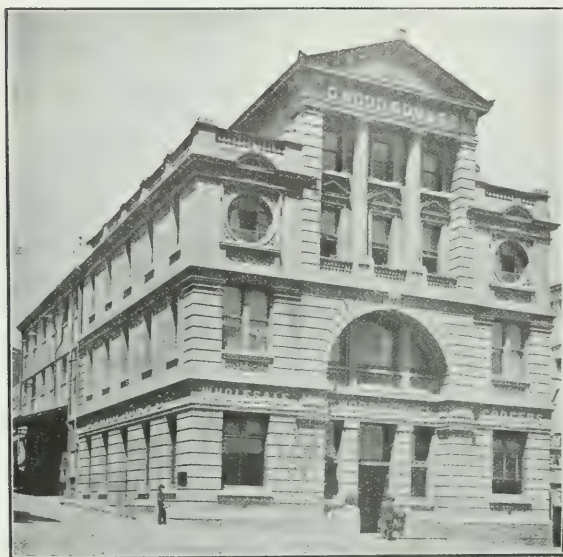
E. J. HORWOOD,  
Manager,  
"Proprietary."



J. SAMPSON,  
Manager,  
"British."



W. E. WAINWRIGHT,  
Manager,  
"South."



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(OPPOSITE RAILWAY STATION).

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Broken Hill, N.S.W.; and London (Mincing  
Lane).

Resident Representatives at

Port Pirie and Mount Gambier, S.A.; and  
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of....**

**Anchor**



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Goods**

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tanas, Apricots, Peaches, &c.

Holbrook's Worcester Sauce.

Symington's Coffee Essence.

Bensdorp's Royal Dutch Cocoa.

Nestle's Swiss Milk.

Grape Nuts.

White's Jelly Crystals.

Peck's Potted Pastes.

Buchanan's Confectionery.

Cailler's Swiss Milk Chocolate.

Rowntree's Homoeopathic Cocoa.

H. J. Heinz's Pure Food Pro-  
ducts, 57 varieties.

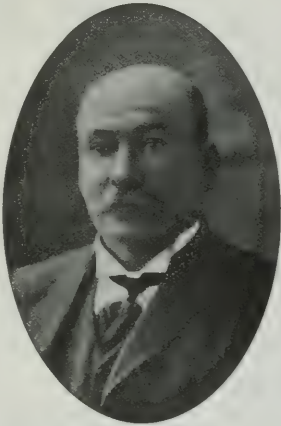
Aulsebrook's Biscuits.

Cherry Blossom Boot Polish.

# Teraï Tea



Broken Hill Warehouse.



C. CHESTER.  
The Mayor.

The City of Broken Hill



E. A. ARCHIBALD.  
Town Clerk.



**Broken Hill's most****Popular Drapers.**

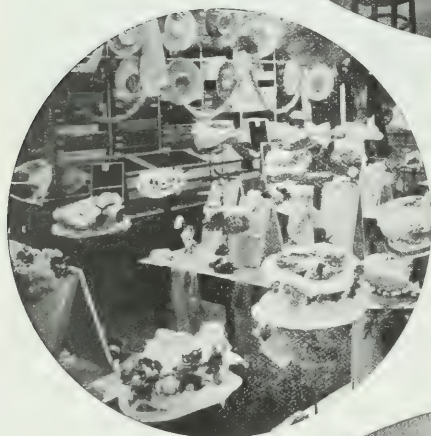
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please  
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Customers.**



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Carriage  
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Country  
Orders.**

The Main Entrance.

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Business is  
Built on the  
Solid Rock  
of Sound  
Values.**



Among the  
Millinery Models.



Another peep at the  
Millinery Room.

**If you're  
not one  
of our  
clients  
we're both  
losers.**



Men's Clothing Section.

**Write us !  
We give  
Special  
Attention  
to Mail  
Orders.**

**PELLEW & MOORE - - Argent Street.**



Exterior View.



A Glimpse of the Gents' Hat Department.

**We give  
you  
20s. worth  
of  
satisfaction  
for every  
£  
you spend.**



A Corner of the Carpet Room.

**We are  
direct  
Importers  
of many  
classes of  
Goods.**



View in the Showroom.

**We are  
Satisfied  
with a  
small  
Margin of  
profit.**





Broken Hill, looking East, showing Mines in background.



A. PRICE,

*Telephone 372.*

*Surgeon Dentist,*

**321 Argent St.**

OPPOSITE PELLEW & MOORE'S.



Broken Hill, looking S.W., showing Central Reserve.





Panorama of Broken Hill at the Present Day.

# The City of Broken Hill

## 1908



"Babel Tower."

**B**ROKEN Hill is a youth of 24 years, born the end of September, 1883, when Charles Rasp "pegged out" the original seven blocks of the Proprietary Company, and thus laid the foundation stone of the Great Silver and future Leaden-Zinc City.

At that time the "Broken Hill" was a portion of Mount Gipps sheep run, dense with mulga scrub and salt-bush, inhabited by kangaroos, wallabys, and wild fowl. Now it stands out as the Second City of the State—one of the wonders of the world—supporting 40,000 inhabitants—possessing the greatest Silver-Leaden-Zinc Mines on the earth—and the pivot on which hangs, directly and indirectly, the destiny of many a human soul.

The official name for Broken Hill is Willyama, the aboriginal name for "a youth," and is situated far into the interior of the Great Australian Continent, 35 miles from the South Australian Border, 120 miles from the Victorian Border, and 334 miles by rail from Adelaide.

Broken Hill officially belongs to the New South Wales Government, but in reality is (or should be) a part and parcel of South Australia. Her natural seaports are on the South Australian Coast, and Adelaide is the open door through which all her merchandise, supplies, and traffic passes.

Broken Hill to-day stands out as a fine city, with many handsome buildings, wide streets, and some beautiful private residences, erected of late years, and owned by those whose business necessitates their residence in the town. At the same time Broken Hill is not the place one would live in from choice: the climate in winter is certainly magnificently grand, and probably unsurpassed in Australia, the town standing over 1,000 feet above the level of the sea, naturally making it dry, healthy, and invigorating. It is the intense heat of the summer, mingled with those dreadful, blinding dust-storms, the severity and unpleasantness of which it is difficult to describe—the natural desolate surroundings—the never-changing outlook of Mills, Shafts, Stacks, &c.—the dilapidated and tumble-down tenements so conspicuous in every mining centre—the absence of green paddocks and spots of beauty on which the eye delights—the deficiency of social life and activity that make up the lung power of human life—all these tend to induce the moneyed man to seek the great heart centres, where endless choice of amusement, variety of scenery, and social intercourse are amongst the natural attractions.

The streets for a silver mining town are appropriately named, and amongst others bear the names of: **STREETS.** Beryl, Blende, Bromide, Chloride, Cobalt, Crystal, Galena, Garnet, Iodide, Kaolin, Mica, Oxide, Sulphide Streets, &c. Argent Street, a fine wide street of imposing appearance, nearly three-quarters of a mile in length, is the business street of the city, and the centre of the retail shopkeepers. It is here the Banks,

General Post Office, Town Hall, and principal public buildings are situated. It would be of great advantage to the city, and decidedly more convenient to residents and strangers, if every house were numbered, it being somewhat difficult under the present system to locate the addresses given. Thus we are told that Mr. So-and-So resides in Bromide Street, off Wolfram Street; or Wolfram Street, off Iodide Street; or Iodide Street off Beryl Street; or Beryl Street, off Sulphide Street; or Sulphide Street, off Blende Street, &c., which is just as unintelligible to the resident as the stranger.



possession of the roadway, and sway to and fro, listening to the Bands, Street Orators, Salvation Army, Cheap Jacks, &c., that are to be found at every street corner at the intersection of the streets, and are only dispersed now and then to make room for the steam tram, which, by the way, leaves huge volumes of smoke in its wake, so dense at times that, combined with wind, dust and steam, it is difficult to grope one's way to a place of safety. Sunday nights are similar, with the one exception that the business houses are closed.

Roughly speaking, Broken Hill pays out almost £40,000 weekly—the present population is 40,000, which equals £1 per head—and from notes gathered by the writer, it may be safely estimated that 25 per cent. of the amount is spent in drink, while only about 5 per cent. of the population are church-going people.

From the isolated position of Broken Hill, daily commodities are high in price—rents are also high—but, to compensate for this, the wages paid are also high in comparison to that of other cities.

On this page will be seen two photographs, which give a fair idea of the early days, as compared with the present times.

In 1888 Mr. Kleinhammer “pegged off” ground at West Broken Hill, near the Hospital, and, as he was required to put on £10 of improvements, built the “hut” which we see in the first picture, where he lived for a considerable time, until his business became so prosperous that he was enabled to build a beautiful home upon the same site (as shown in the second picture), with pleasant surroundings, and where he now lives in comparative comfort.

Full information, however, has been given in the former part of this book of the early history and rapid growth of Broken Hill, both as regards the mining industry as well as the City itself; and in this portion of the work the writer wishes to deal principally with the municipal, commercial, and social activities, giving a short account of the various organisations and institutions which tend to build up a City.

There are few Cities who observe the half-holiday early-closing day (Wednesday) more religiously than the Barrierite, every shop being closed with the exception of the fruit and confectionery business, even the chemists taking upon themselves to indulge in a half-day off.

Saturday is the great night for Argent Street, and the harvest time for the shop and hotel keepers, the latter being allowed to remain open every night in the week till 11.30 p.m. local time.

A human mass throng the street, taking





## The Municipality of Broken Hill

was incorporated on September 22, 1888, and in 1890 the Council completed the borrowing of £15,000 from the Bank of New South Wales, for the purpose of erecting a Town Hall and Fire Brigade Station on one of the best sites of the



Town Hall.

town, which cost, including the furnishing, about £12,000. For a number of years the Council had a hard struggle, owing to the immense cost (from the isolated position of Broken Hill) in obtaining plant and material for road-making and effecting other improvements.

The municipality has four wards, with an area of 25 square miles, which is represented on the Council by 12 Aldermen, all of whom retire tri-annually. The general elections are held every third year in the month of February, the Mayor being chosen each year from amongst the Aldermen themselves.

There are five Parks or Reserves, similar to the one appearing on another page, each being well fenced in and planted with trees, shrubs, flowers and grass, with a handsomely constructed Rotunda in the centre, which are constantly availed of by the Bands and others for open air concerts.

The Council possesses two Ovals: The Western, fenced in with iron, and the grounds fitted up with a fine pavilion, and all the conveniences necessary for carrying out almost any kind of sport, the total cost of the improvements amounting to £1,300; the second is the Alma, on which is erected a pavilion and dressing room costing £350.

From the inception of the municipality a room was set apart in the Town Hall as a Free Library and Reading Room, stocked with a fair collection of scientific works, books of reference, magazines, and newspapers. Later on a stone building was erected at South Broken Hill, which is utilised for the same purpose, and also more recently another was established at Burke Ward. Both of these Institutes have large halls, ante-rooms, &c., that are let for meetings. Some 16 months ago a librarian was appointed, and a Free Lending Library was established in the Town Hall, commencing with about 800 books, a deposit being required from each member who desires to take a book home to read, the amount being returned on the person ceasing to be a member. This Lending Library proving such a marked success, similar ones were started about eight months ago in the above-named Institutes. The Town Hall has now a membership of 850, and a total of over 3,000 books.



Council Meeting.

T. Whetsone

C. Chester, the Mayor

E. A. Archibald, Town Clerk

W. J. Retallick

B. J. Roe

J. Long

T. Gamboni

J. Polkinghorne

T. Ivey

T. Jobbing

W. Bath

Dr. J. Booth



A few of the **Old Barrierites** still living on the Hill. It is regrettable that several who should have been amongst the number did not accept the invitation to be present.



Alf. Orman (1883).



E. H. Fromen (1886).



E. J. Horwood (1886).



T. C. Tait (1884).



O. Von Rieben.  
(1887)



A. S. Knight.  
(1887)

Back Row—E. H. Dawson (1884), Justin McCarthy (1887), Peter Morrison (1888), Noah Dix (1885).  
Next Row—W. R. Thomas (1884), W. H. Santo (1885), R. D. Hale (1883), Anthony Hall (1888), E. A. Archibald (1884).  
Sitting—A. F. Pincombe (1884), John Bristowe (1888), Jas. Hebbard (1884), W. J. Player (1884), John Sully (1887),  
On Ground—Fred. Gilbert (1884), E. W. Aldridge (1884), G. C. Bowen (1885).



E. Boan.  
(1887)



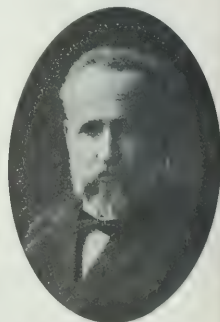
A. Stenhouse.  
(1887)



Very Rev. Father  
Connolly (1887).



J. W. Harris.  
(1887)



John Torphy.  
(1887)

Through the instrumentality of Dr. James Booth, in the first instance, and the generosity of Mr. George McCulloch, of London (formerly owner of Mount Gipps Station), and other gentlemen lovers of art, a fine collection of paintings has already been received, estimated to be worth over £2,000, and by the kindness of the Hon. the Minister for Public Instruction, are hanging in the large Museum Room in the Technical College placed at the free disposal of the Council.

Swimming baths have been established at a cost of £3,600. The basin—90 ft. by 30 ft.—when filled contains 96,000 gallons of water. The baths are well patronised during the summer months, and it is the intention of the Council shortly to add Turkish baths. The place is installed throughout with electric light.

Broken Hill has up to the present been without any Street Lamps, although the matter has occupied the attention of the Council for some time past, and, after various proposals being submitted, they decided to accept the offer of the Company owning the Electric Power Plant, who proposed to dispose of their works as a going concern for £12,000, the Council taking possession on December 1, 1905. Forty-two lamps will be placed along the tramway route, and 33 lamps (each 600 watts) are to cover the principal sections of the city, the cost being, approximately, £7,000. The necessary machinery was ordered, and now the Engine and Generator, a Belliss Morcom 150 K.W., is in position and working satisfactorily, the poles and cables are in course of erection, and it is anticipated that the lights will be seen illuminating the city before the end of the year. The net profit made for the supply of power and light to private consumers has been about £100 per month. The street lighting expenditure will, of course, be met by a rate.

The Council are the owners of two reservoirs—the Imperial, with a holding capacity of 80,000,000, and the South, of about 15,000,000 gallons of water, together with pumping machinery and other requisite appliances.

A special Act for the establishment and maintenance of Abattoirs, Saleyards and Markets was assented to in 1900, plans were prepared, with an approximate cost of £5,000, and it is anticipated that the buildings will be in readiness next year.

The Sanitary System of the town is also under the control of the Council, who of late have made many improvements.

For the purpose of carrying out Street Lighting, liquidating the Bank Debt (£5,000), erection of Abattoirs, and general Town improvements, the Council negotiated a loan, in all of £20,000, from the Colonial Mutual Insurance Society, Melbourne, at 4 per cent. per annum, to be repaid by 16 annual instalments of £1,250 each, the first annual payment of principal being paid on September 1, 1906.

The Assets of the Corporation on February 4, 1907, were estimated at £53,390, and the liabilities £19,228; while the following shows the revenue and expenditure for the year ending on same date:—



Officers of the Council.

Back Row.—E. Merritt, K. G. Druhmel, R. S. Ross, P. Reidy, G. Dolman, R. Thustain. Sitting.—G. W. Carroll, T. E. L. Virgo, L. H. Beck, E. A. Archibald, J. G. Wiseman, D. P. Dempsey, A. E. Lawton. On Ground.—W. P. Ivey, W. D. James.

REVENUE.	£	EXPENDITURE.	£
General and Special Rates . . . . .	12,363	Road and Street Works . . . . .	4,497
Sanitary Fees . . . . .	8,368	Sanitary . . . . .	8,898
Licenses, Rent, and other sources . . . . .	3,298	Electric Light . . . . .	4,890
Electric Light, current and power . . . . .	5,571	General Expenditure . . . . .	11,220
	£29,600		£29,505

Occupying a portion of the Town Hall is the Custom House quarters. The tabulated form herewith gives statistical information from 1906 to present date, showing very clearly the progress of Broken Hill, and especially





## St. Peter's Anglican Church,

**BROKEN HILL.**

### SUNDAY SERVICES:

- 8 a.m.—Holy Communion.
- 11 a.m.—Holy Eucharist (1st Sunday in month)  
Matins and Sermon other Sundays.
- 3 p.m.—Sunday School.
- 4 p.m.—Holy Baptism.
- 7 p.m.—Evensong and Sermon.

**Vicar**—REV. W. DENZIL HERRING,  
The Pro-Vicarage,

Iodide Street.

Interior View will be found on Page 115.

## St. Andrew's Presbyterian Church,

**LANE STREET, BROKEN HILL.**

**Pastor:** REV. J. PATERSON, M.A.

### Sunday Services:

11 a.m. and 7 p.m.

**Sunday School:** 2.45 p.m.

### Week-night Service:

THURSDAY, 8 p.m.

### Literary and Debating Society:

MONDAY NIGHT, 8 p.m.



## Salvation Army Central Corps.

### Officers in Charge:

**STAFF-CAPTAIN** and **MRS. GOLDFINCH.**

**Assistant:** **LIEUTENANT GOULD.**

### Sunday Meetings:

7 a.m., Kneedrill; 11 a.m., Holiness Meeting;  
3 p.m., Public Meeting; 7 p.m., Salvation Meeting.

**Monday**—8 p.m., Salvation Meeting.

**Tuesday**—8 p.m., Soldiers' Assembly.

**Wednesday**—8 p.m., Salvation Meeting.

**Thursday**—7.30 p.m., Band Practice.

**Friday**—8 p.m., Holiness Meeting.

**Saturday**—7.30 p.m., Open-air Meeting.



The Salvation Army have Corps at the South, North, and Railway Town; also a Maternity Home in Chapple Street.



so, if compared with previous figures given in the former portion of this book, stating the custom returns of both Silverton and Broken Hill in the early days.

Quarter Ending.		Total Ex-ports- £	Lead in Ore. Tons Value. £		Silver in Ore. Ounces Value. £		Zinc Concentrates Tons Value £		Silver Lead Ore Tons Value. £		Copper Ore Tons Value £	
March	31, 1906	550,115	29,910	317,853	1,456,590	118,826	18,268	39,835	3,792	11,504	167	1,370
June	30, 1906	563,068	29,586	328,043	1,401,610	120,990	26,580	53,860	3,791	11,116	140	1,370
Sept.	30, 1906	564,531	25,988	302,332	1,223,729	110,774	16,920	33,642	3,636	18,775	182	1,410
Dec.	31, 1906	914,780	33,286	437,804	1,578,701	155,941	24,080	55,456	9,486	53,584	192	1,567
March	31, 1907	674,213	28,708	401,721	1,324,013	131,630	33,938	64,829	9,879	32,227	211	2,072
June	30, 1907	800,705	34,247	474,000	1,638,162	149,659	54,102	106,948	7,761	32,851	163	1,351
Sept.	30, 1907	984,720	40,610	577,569	1,814,920	187,919	47,969	87,256	10,627	49,976	82	706

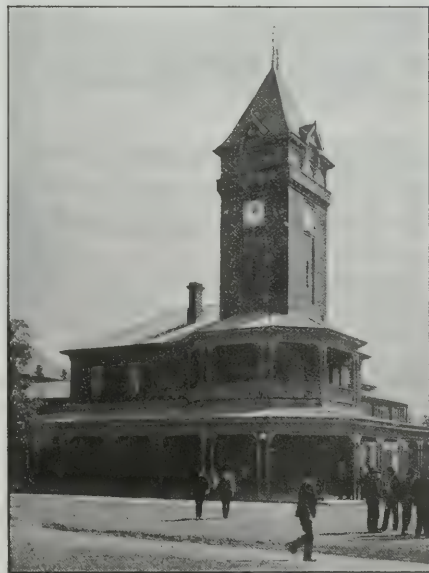
Quarter Ending.		Total Concentrates.		Slimes.		Gold Contained in Ore		Total Imports.	Duty Credited	Duty collected	Passenger Arrivals from S A	Traffic Departures for S A
		Tons	Value. £	Tons	Value. £	Ozs.	Value £					
March	31, 1906	48,921	395,732	27,987	40,947	970	3,880	241,569	17,210	5,725	5,720	4,512
June	30, 1906	52,956	431,535	12,556	17,498	662	2,648	316,049	20,134	5,884	4,903	4,356
Sept.	30, 1906	47,162	388,076	14,683	25,030	507	2,028	350,979	20,753	5,401	3,984	3,802
Dec.	31, 1906	57,914	543,151	25,502	50,594	730	2,922	426,770	23,945	6,469	4,446	6,378
March	31, 1907	50,330	497,158	18,681	36,193	626	2,504	400,748	24,274	7,091	8,533	6,746
June	30, 1907	65,277	570,048	29,551	53,615	878	3,512	413,135	23,736	7,184	7,187	4,597
Sept.	30, 1907	71,416	714,381	17,086	29,679	591	2,364	491,876	31,902	10,114	7,193	6,351

In juxtaposition to the Town Hall stands the Technical College to the North, and Police Station and Post Office to the South. The General Post Office is a fine brick structure, having a clock tower with four dials, but quite inadequate to-day to cope with the enormous business of such an important city. In the early days the Post Office commenced with an average of 20 letters per week, and when the present building was erected, the amount of revenue was about £25,000 per annum. To-day it is over twelve times that amount, yet no extra room or accommodation has been provided for the transaction of such a large and increasing business.

This is not the first time the Post Office has been taxed for room, &c., for we read that in 1888 Mr. Newton, the then post-master, being unable to stand the strain and worry consequent on the ever-increasing work, and also owing to the authorities in Sydney not supplying the demand for Postage Stamps, Money Orders, Telegraphic Forms, etc., resigned his position. In desperation the townspeople took possession of the wires, and messages were sent direct to every Minister of the Crown and the then Governor, Lord Carrington. Sir Henry Parkes was Premier, and one wire sent to him read: "Do you think your Ministry capable of managing this colony? Here we have some 7,000 inhabitants, and not a single stamp, money order, promissory note, or telegraph form—in fact, hardly anything. If your people can't manage the country, let better men try to do so." To the Minister of Justice the wire read: "Has the Minister any idea of the importance of this place? . . . There is a limit to all things, and our patience is almost exhausted. . . We shall be compelled to demand annexation to South Australia." . . . Two-penny stamps now selling at 6d. each." Another: "Kindly accept my sympathy for your country's inability to supply two-penny stamps." To Mr. De Courcy Browne, then member for the district, the wire read: "Postage stamps selling at big premium. Kindly send special messenger with £100 worth. Can make a fortune."

The following shows the immense amount of business transacted at the Post and Telegraph Central Office, Broken Hill, for a period of six months, the total amounting to £161,705:—

Telegrams read, and despatched, local business only	72,973	2,588
Money Orders issued . . . . .	8,452	31,166
Orders and Postal Notes paid . . . . .	6,142	8,674
Postal Notes sold . . . . .		12,707
Savings Bank Deposits and Withdrawals . . . . .	9,385	95,551
Sale of Stamps . . . . .		9,000
Sale of Stamps (duty) . . . . .		792
Telephone Fees . . . . .	Appx.	1,152
Private Box Fees . . . . .		75
Letters . . . . .	733,794	531,366
Letters (Registered) . . . . .		7,747
Cards . . . . .	101,946	129,204
Packets . . . . .	41,952	36,438
Newspapers . . . . .	103,200	113,646
Parcels . . . . .	2,196	5,874



The General Post Office.

A. M. D. G.  
HUNC PRIM LAPIDEM  
Ecclesiae S. S. Cordis Jesu  
R. R. J. DUNNE,  
Episc. Wilcan  
Posuit  
Dec. 6, A.D. 1903.

"Foundation Stone."

The Foundation Stone of the **Pro-Cathedral** was laid on December 6th, 1903, and the fine handsome structure, costing upwards of £8,000, was solemnly

opened on JULY 2nd, 1905, by

Most Rev. Dr. Carr, Archbishop of Melbourne.  
Most Rev. Dr. Kelly, Archbishop of Sydney.  
Right Rev. Dr. Dunne, Bishop of Wilcannia.  
Right Rev. Dr. Gallagher, Bishop of Goulburn.  
Right Rev. Dr. Murray, Bishop of Maitland.  
Right Rev. Dr. Higgins, Bishop of Ballarat.  
Right Rev. Dr. Corbett, Bishop of Sale.



Roman Catholic Cathedral.

## Broken Hill Baptist Church.

### Sunday Services:

Morning, 11 a.m.; Sunday School, 2.45 p.m.; Young Men's and Young Women's Bible Class, 2.45 p.m.; Evening Service, 7 p.m.

**Tuesday**—Christian Endeavour Meeting, 7.45 p.m.

**Wednesday**—Mid-week Service, 7.45 p.m.

**Thursday**—Choir Practice, 7.45 p.m.

### Minister:

REV. J. MURRAY, Mica St., off Oxide St.

**Secretary**—MR. J. COPLEY.

## Broken Hill Congregational Church.

### Services:

**Sunday**—Morning Service . . . . . 11 a.m.  
Evening . . . . . 7.45 p.m.  
**Monday**—Bible Class . . . . . 7.45 p.m.  
**Tuesday**—Christian Endeavour . . . . 7.30 p.m.  
**Wednesday**—Mid-week Service . . . . 7.45 p.m.  
**Friday**—Choir Practice . . . . . 7.45 p.m.

### Pastor:

REV. WM. JARRETT, Bromide Street.



## The Technical College.

The Technical College at Broken Hill was established in 1897. The present handsome and commodious buildings, extending from a frontage in Argent Street to Blende Street, occupying a site about an acre in extent, were erected in 1901, and cost over £20,000.

The College provides courses of instruction in Practical and Theoretical Chemistry (inorganic and organic); Assaying; Metallurgy; Geology, Mining, Mine Surveying, Mineralogy, Mechanical Drawing and Machine Design; Physics; Mathematics; Electric Motor Driving and Steam Engine practice; Model, Geometrical, Freehand and Perspective Drawing; Commercial Subjects, including Shorthand, Book-keeping and Typewriting; Domestic Science; Scientific Dress-cutting and Cookery, Carpentry and Joinery.



Technical College, Argent Street Frontage.

**The Principal, Mr. James Forde, B.A., B.Sc.,** is Lecturer in Chemistry, Geology and Mineralogy.

**Mr. E. Clarence Wood, M.A., B.Sc., B.E.,** is Lecturer in Assaying, Metallurgy, Physics and Mine Surveying.

**Mr. F. Bradford, A.S.A.S.M.,** in Mechanical Drawing and Machine Design.

**Mr. B. Sawyer, B.E.** (Government Inspector of Mines), in Mining.

**Mr. G. L. Wainwright, B.Sc.,** in Mathematics.



Technical College Staff.

Back row—C. J. Walker; C. L. Wainwright, B.Sc.; F. Bradford, A.S.A.S.M.; W. Thomson.  
Front Row—

Mrs. Iles; B. Sawyer, B.E.; James Forde, B.A., B.Sc.; E. Clarence Wood, M.A., B.Sc., B.E.;  
Miss Dutton.

The Art Classes are conducted by Mr. Walker; the Commercial Classes by Mr. Thomson, F.I.A.; the Domestic Science Classes by Miss Dutton; the Dress-cutting Classes by Mrs. Iles; the Carpentry and Joinery Classes by Mr. T. Eaton.

Classes in Mechanical and Electrical Engineering will shortly be established.

The aggregate enrolment of students in attendance is nearly 500, the time-table being so arranged as to suit the convenience of students working on shifts.

The College receives active support from the mine managers, most of the officers on their assay staff being selected from its students.

It awards Certificates, Diplomas, and Associateships to students

who have passed the prescribed examinations. Fellowships are conferred upon Associates who have distinguished themselves by original research work.





# The Broken Hill Methodist Circuit.

The Rev. A. Wellesley Wellington is General Superintendent of the Churches, and also Chairman of the District.

Name of Church.	Pastor.	Residence.	Sunday Services.			Public Prayer Meeting	Christian Endeavour.
			Morn- ing	Even- ing	S.S.		
Sulphide Street	Rev. A. Wellesley Wellington	Wolfram St. (opp. S.A. Barracks)	11.0	7.0	2.30	Monday, 7.30	Thursday, 7.45
Blende Street	Rev. C. E. Schater	Beryl Street	11.0	7.0	2.30	Y.P. Class. Thursday, 7.30	Monday, 7.30
Oxide Street	Rev. W. W. Finch	Chloride Street	11.0	7.0	2.30		
Nicholls St. (Railway Town)	Rev. P. C. W. Eekersley		11.0	7.0	2.30		Thursday, 7.30
Central St. (S. B. Hill)	Rev. T. Theobald	Central Street (opp. church)	11.0	7.0	2.30		
Lane Street	Rev. W. W. Finch	Chloride Street	11.0	7.0	2.30		Thursday, 7.30
Pickton	Rev. C. E. Schafer	Beryl Street	11.0	7.0	2.30		Thursday, 7.30



Typical School—The Alma Public School, South Broken Hill.

## Public Schools.

Four capacious public schools (similar to photo)—the Central—North—Burke Ward and Alma—are fully taxed, the daily attendance of scholars reaching 4,000, out of 5,500 enrolled. Enlargements of the schools, however, are now proceeding. One hundred infants are separately taught under Kindergarten. Secondary education is provided for at the District Public School, which is also a training department for young teachers. In connection with the above, 90 teachers are engaged, and their ability and success may be gauged by the high percentage gained in the Inspector's examinations. Visiting Days and Physical Displays are quite popular—the parents particularly evincing a deep interest. The Roman Catholics maintain separate schools, with an enrolment of 1,500 children, and these, too, are doing excellent scholastic work.



## "The Barrier Miner"

which made its debut in Broken Hill on February 28, 1888, has rightly been termed one of the phenomenal newspaper successes of the Commonwealth; and it is still growing, the Proprietary (Knight & Von Rieben, Limited) having just completed the erection of commodious stone offices at the corner of Sulphide and Blende Streets. The printing plant has also been brought up to date by the installation of four linotypes, a Foster rotary machine, and a complete stereotyping plant. The "Miner" has consistently adhered to a Liberal and Independent policy, and has been successively edited by J. H. Carden, S. H. Prior (now financial editor of "The Bulletin"), Nelson P. White-locke, and E. R. Kelsall. At one time "The Miner" had four contemporaries—two dailies and two weeklies—but survived the lot, having continued as a penny daily since its inception. Messrs. A. S. Knight and Otto von Rieben have been associated in the active management of the paper for over 17 years, but arrangements are now in progress which will permit of them residing out of Broken Hill—Mr. Knight in Sydney, and Mr. Von Rieben in Adelaide.



The New Offices of the "Barrier Miner," erected in 1907.



# The Convent, Broken Hill.



Convent of Our Lady of Mercy, "Convent Hill."

## Day School--

*St. Joseph's High School.  
Broken Hill.*

## Boarding School--

*Convent of Mercy,  
Mount Barker, S.A.*

"A Branch House from Broken Hill Convent."



At the above Schools, Pupils are prepared for the Sydney and Adelaide University Examinations, also for Trinity College (London), Associated Board of Music (London), and Adelaide University Examination in Music (Vocal, Practical and Theoretical).

The Virgil Clavier Method of Pianoforte playing is taught. Singing (Private Lesson, £4 4s. per term) is taught by a pupil of the renowned Masters, Garcia and Caravoglia, London.

The School curriculum includes, besides all the branches of thorough English Education, Latin, French, German, Drawing, Needlework, Painting, Shorthand, Typewriting and Book-keeping.

Every attention is given to the Moral, Intellectual and Physical training of the Pupils.

The Boarding School, Mt. Barker, situated in the Hills, is about 5 minutes' walk from the Railway Station. The Climate is considered to be the best in South Australia and should prove a great boon to people resident in Broken Hill, who are anxious to send their children to a healthy spot, where they can obtain a good, sound education, combined with moderate terms.

### Terms:

£35 per year, including Tuition.



The University Class.





Interior of St. Peter's Anglican Church, Broken Hill.



## Churches.

The Churches of the various denominations are well represented, a good idea of which will be gained from our illustrated pages.



## Banks.

The following Banks are represented at Broken Hill:—

Bank of Australasia, The .. . . .	Manager, J. C. Dobbryn ..	Opened May, 1886
Bank of New South Wales, The .. . . .	.. A. J. Thomas ..	.. , 1888
Commercial Bank of Australia, Ltd., The ..	.. C. S. Beveridge ..	.. , 1887
London Bank of Australia, Ltd., The .. .	.. M. Doyle ..	.. April, 1888
National Bank of Australasia, Ltd., The ..	.. J. B. Sands ..	.. Nov., 1887
Union Bank of Australia, Ltd., The .. . . .	.. H. N. Grant ..	.. June, 1887

The townspeople and shops, &c., keep the local time, but the Banks adhere to the Sydney time, which is half-an-hour in advance of the Broken Hill time; thus the Banks open at 9.30, which equals 10 a.m. Sydney, and close 2.30 p.m. local time, which is 3 p.m. in Sydney.

The General Post Office follows the same rule. Inside all the offices the clocks are set at Sydney time, whereas the dials in the clock tower outside show the local time( i.e., when the clock is in working order). The Post Office clock, however, seems to have a special time all of its own, quite independent of either Sydney or Greenwich time; in fact, one might say that it keeps very irregular hours, often being stuck up all night and peacefully sleeping through the day, perfectly unconscious of those who have previously pinned their faith on its reliability.



Head Officers of the C.P.O.



# Good, Toms & Co.,

Stephens and Gawler Places,

ADELAIDE,



Warehouse, Stephens Place, Adelaide.

Also

BROKEN HILL, N.S.W., and  
LONDON.

IMPORTERS and

WAREHOUSEMEN.



Also---

Manufacturers of

"STANDARD"

Shirts and Clothing.



Broken Hill Warehouse.



Arrival of Mail Train at Sulphide Street Station, 8 a.m.

## The Silverton Tramway Company, Limited.

**CAPITAL**—The Capital of this Company is £197,806, in £1 shares, all issued and fully paid up.

### Directors:

HON. D. E. McBRYDE, M.L.C.  
ROBERT POWER

W. J. SADDLER  
J. C. SYME

EDWIN F. MILLAR

**Act. Secretary: C. F. MACDONALD.**

**General Manager (Broken Hill): CHARLES ELEY.**

**Secretary: L. H. M. AVERY.**

The word "tramway" is a misnomer; it is a fully equipped railway of 35 miles, connecting South Australia at Cockburn, the border town, with Broken Hill via Silverton, and was opened for traffic in 1888. The gauge is 3½ ft., and the line is linked to Broken Hill and surrounding districts with the South Australian Government lines to Port Pirie. There is also a connection with Tarrawinge, owned by the New South Wales Government, but worked by the Company. All the mines are tapped by a complete network of lines. The Company owns 15 Beyer Peacock engines, a large number of steel trucks and passenger carriages—employ over 300 men—and pay away in wages over £40,000 per annum. The head-quarters of the Company are at Railway Town, about a mile from the city, where large workshops are situated, fitted with the most up-to-date machinery for the manufacture of everything required for the rolling stock. Some very interesting figures can be given, showing the tonnage carried since the opening of the line, thus:—

	Tons.
Bullion carried .. . . . . .	362,637
Coal carried .. . . . . .	1,209,898
Coke carried .. . . . . .	508,983
Flux carried .. . . . . .	752,601
General Goods carried .. . . . . .	1,070,728
Mining Timber carried .. . . . . .	407,919
Ore Concentrates carried .. . . . . .	5,226,942
Wool carried .. . . . . .	40,760

For the same period the passengers carried numbered 885,710, and live stock 34,869, while the distance covered by the trains was 2,896,731 miles.

In 1888 the average load per train was 58 tons, while in 1906 it had risen to nearly four times that amount, viz., 220 tons.

### Dividends paid since Inception of Company.

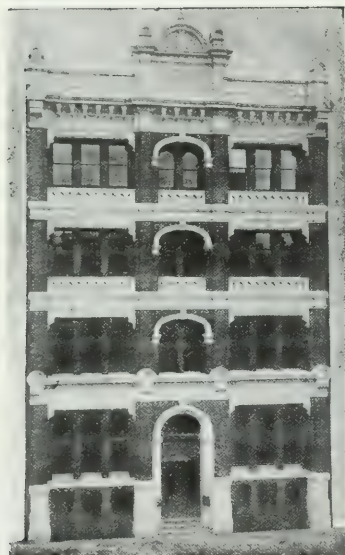
	£
1889	29,654
1890	68,683
1891	82,419
1892	59,341
1893	70,000
1894	40,000
1895	84,067
1896	98,903
1897	93,957
1898	79,122
1899	79,122
1900	79,122
1901	74,177
1902	44,506
1903	39,561
1904	39,561
1905	59,341
1906	59,341
Grand Total	£1,180,877



# Goode, Durrant & Co., Ltd.,

*Softgoods Warehousemen  
and Manufacturers,*

Grenfell Street, Adelaide,  
South Australia.



Adelaide Warehouse.

---

**ESTABLISHED 1882 by C. H. GOODE and W. H. DURRANT.**

***Formed into a Limited Company, 1898.***

---

**HEAD OFFICE:**

27 Milton Street, London, E.C.

**BRANCHES:**

Adelaide, S.A.; Perth, W.A.; Kalgoorlie, W.A.; Broken Hill, N.S.W.; and Paris.

---

**DIRECTORS :**

**LONDON :**

Wm. Howard Durrant, Albion J. Williams,  
Guiseppe Carusi.

**ADELAIDE :**

Chas. Henry Goode, Henry Heale, Charles F. Chennell.

**PERTH :**

William Lowe.

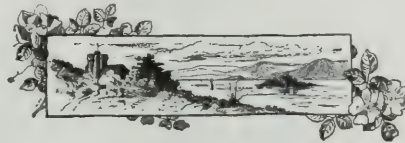


Gawler Place, Broken Hill.

But, interesting as these figures may appear, they are nothing as compared with the amount of dividends paid since the inception of the Company in 1888.

Next to the "Proprietary," it is the greatest dividend-paying "mine" on the Barrier, and probably there is no other Railway Company in the world, with only 35 miles of lines, that can boast of paying away in dividends over £1,180,877 in eighteen years.

The Company's agreement with the New South Wales Government is that, at any time after 1907, upon giving six months' notice, the Government has power to purchase the tramway rolling stock and all works for a sum equal to twenty-one years' purchase of the annual divisible profits, estimated at the average of the seven then preceding years. On this basis the cost to the New South Wales Government would, on the past seven years' working, be over £1,500,000, or about £7 13s. per share.



Standing—F. Spence, L. H. M. Avery.  
Sitting—W. G. Lewis, Charles Eley, T. J. Kernot  
(Gen. Manager).

## Silverton Tramway Employees' Institute.

The present building, as now fitted and utilized as a library for the benefit of the employees, was at one time the old Sulphide Street station, and when same had to make way for a more substantial and attractive building, it was presented, with a handsome monetary donation by the Directors of the Company to the employees for the above-mentioned purpose.

The building was opened on March 15, 1906, and is at present comfortably fitted, and makes a cosy little spot in which the employees can spend their leisure hours.

The Library consists of about 600 volumes, and these include 75 special books of reference, the latest editions on Engineering, Engine Running, Steam Boiler Construction, Electricity, Magnetism, and such-like subjects, a knowledge of which will be invaluable to the employees of the Company. The lighter literature is sufficiently comprehensive, and includes some of the works of all the best-known novelists. The leading newspapers, magazines, and anything of interest readily finds a place—and beyond this the Institute possesses well-preserved bound files of the old "Silver Age" paper from its inception to defunction, containing the early history of the Barrier silver fields—to which the writer had free access, through the courtesy of the General Manager of the Company, Mr. Charles Eley.



Standing back—J. Finlay, A. Lock, T. Arthur, S. E. Jinks, T. A. Eley, J. Bailey.  
Sitting—A. E. Whittney, H. O. Merritt, Chas. Eley, J. Probert, Fredk. C. Elvidge  
(Treasurer), (Chairman), (President), (Vice Chairman), Hon. Sec.

# G. & R. WILLS & CO.

Adelaide, South Australia.



NORTH TERRACE ENTRANCE.

SOFT GOODS WAREHOUSEMEN and  
GENERAL IMPORTERS.

Manufacturers of Boots, Shoes, Clothing, Shirts, &c.



BROKEN HILL WAREHOUSE.

ALSO AT  
187 FLINDERS LANE,  
MELBOURNE;  
PERTH, FREMANTLE  
KALGOORLIE;  
BROKEN HILL, N.S.W.;  
CHAPEL ST.,  
WHITECROSS ST.,  
LONDON;  
MANCHESTER;  
PARIS.



## New South Wales Government Tramways, Broken Hill.

The trams were first opened for traffic on February 15, 1902; length of lines, 3 miles; rolling stock, two motors, four cars; and the total staff then employed being only twelve.

On December 24, 1902, the Murton Street extension was opened, and on May 6, 1903, the Kaolin and Whittaker Streets extensions were opened, thus making a total mileage of single track 6 miles 17 chains.

From June 26 to September 2, 1903, the trams were closed, owing to the water famine.

From that time to the present day, matters have gradually gone ahead, as will be plainly seen by the increase of passengers for the month of June in each year since the line was opened:—

1902	1903	1904	1905	1906	1907
39,677	77,784	106,337	125,971	145,199	199,219

The staff now numbers 60, and the rolling stock consists of 8 motors and 21 cars.

**W. H. J. Shelverton** is the officer in charge, with **J. F. Travers**, Revenue Clerk; **M. P. Ford**, Junior Clerk; **C. P. Young**, Sub-Inspector; **W. Flemming**, Ticket Inspector.

The whole is under the supervision of **John Kneeshaw, Esq.**, Tramway Traffic Superintendent, Sydney.



"Motor."



The Tramway Staff.



Interior View.

### Melbourne Agencies—

**THE MANUFACTURERS' AGENCY, LTD.,**  
236 Flinders Lane.

Soft Goods Warehousemen.

**FRANK STONE & CO.,**  
90 Nicholson Street, Abbotsford.  
Juvenile Clothing Manufacturers.

**THE LAMSON PARAGON SUPPLY CO.,**  
**PROP., LTD., of AUSTRALASIA.**  
Swan Street, Richmond.  
Manufacturers of Counter, Check, Plie,  
Invoice and Day Books.

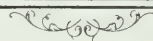
### Sydney Agencies—

**McMURTRIE & CO., LTD.,**  
Clarence Street.  
Boot and Shoe Manufacturers and  
Warehousemen.

**TAYLOR BROS., LTD.,**  
Fresh Fruit Jam Manufacturers and  
Preservers.  
Sydney, Hobart and Brisbane.

## C. C. CAMPBELL,

Argent Lane,  
**Manufacturers' Representative**



### Adelaide Agencies—

**J. KITCHEN & SONS & MARSH, LTD.,**  
Soap, Candle, and Soda Crystal  
Manufacturers.  
Torrenside, Thebarton.

**WM. STORRIE & CO., LTD.,**  
Importers of Glass, China, Crockeryware  
and Fancy Goods.  
Rundle Street.

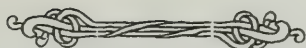
**THE S.A. BRUSH CO.,**  
Brushware Manufacturers and Importers.  
Grenfell Street.

**MOTTERAM & WILLIAMSON,**  
Biscuit Manufacturers.

**PALMER, PRESTON & CO., LTD.,**  
Hardware and Ironmongery Importers.  
Port Adelaide.



Interior View.



## Broken Hill Chamber of Commerce.

This Chamber of Commerce was established in 1898, the first President being Mr. J. Sully, who has been a constant worker ever since.

As in all other cities, this Chamber of Commerce is looked upon as the Recognised Governing Body for the Trade of Broken Hill, and all matters of dispute amongst the Trade are fully discussed, all holidays fixed, and general matters affecting the town receive the careful attention of the Board. In connection with this Chamber, there has been established a "Mercantile Agency," which has



H. W. James, Secretary.

proved of great assistance to the trade, and its protective principles guards against imposition and fraud.

Mr. H. W. James is the indefatigable secretary of the Chamber of Commerce, as well as the Mercantile Agency, and it is not too much to say that it is by his instrumentality that both have been brought to such a successful issue.

The Chamber has been the means of quickening and improving the rail connection with Adelaide, the improvement of the telephone and postal arrangements, and many other important matters.

The officers for this year are:— President, A. B. Wood; Vice-Presidents, R. E. A. Kitchen and H. Penhall; Secretary, H. W. James.



Broken Hill Chamber of Commerce.

A. B. Wood.  
(President).

J. Sully      W. R. Nairn (Past Pres.)

R. Correll      C. Moore

R. E. A. Kitchen (Vice-Pres.)

L. Newton (Act. Sec.)

G. Edelman

H. Penhall

F. Moore

M. B. Wilson (Vice Pres.)

W. Roden

J. Copley

W. Nolan

A. Edelman

R. V. Wilson



## Broken Hill Water Supply, Limited.

The Company was registered in Melbourne on February 12, 1890. It was formed to take over the interests of "Nolan's Stephens' Creek Broken Hill Water Supply Company, Limited" and "The Barrier Ranges and Broken Hill Water Supply Company, Limited."

An Act of Parliament was passed in New South Wales, and assented to on December 17, 1890, granting to



the Company the right to supply water in the Broken Hill district for a period of 28 years, the works, at the end of that time, to become the property of the Government.



The Reservoir when Empty July, 1903.

Direct Acting Duplex Condensing Engines, built by the Otis Engineering Co., Ltd., Melbourne, and one 8—12—20 x 15 x 7½ Triple Expansion Direct Acting Duplex Condensing "Worthington" Engine, steam being supplied from two 52 horse-power and two 96 horse-power Babcock & Wilcox Boilers. The whole plant is capable of delivering 80,000 gallons per hour to a height of 364 feet.

Water for mining purposes is delivered direct to the mines, while that for domestic and general town use is delivered to the Filtration Works, where it is filtered and discharged into the clear water reservoir, which has a capacity of 1½ millions gallons. Filtered water is distributed through 46 miles of reticulation mains to over 3,000 consumers.

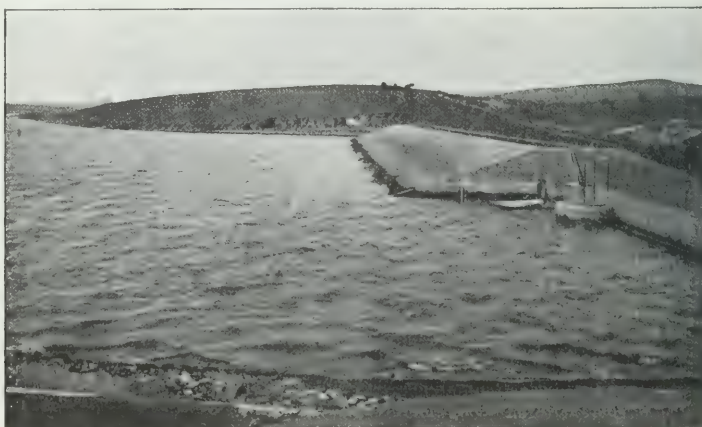
The price now charged for water—except that used for gardening—is five shillings per 1,000 gallons. There is a special reduced rate for water used for garden purposes, the object being to induce consumers to beautify their homes and the city.

The capital of the Company was £200,000, in shares of £1 each, but this has recently been reduced to £150,000 by the repayment of five shillings per share. In addition to this repayment, fifty-four dividends averaging about sixpence per share have been paid, and some £60,000 of profits have been capitalized.

From a conservation point of view, it is necessary for heavy thunder-rains and monsoonal disturbances to replenish supplies of water. For eight years previous to 1903, drought conditions prevailed, and from June 21 to August 31, 1904, Stephens' Creek Reservoir

The Stephens' Creek Reservoir has a catchment area of, approximately, 200 sq. miles. The dam is of earthwork, with clay-puddle core, and there is a by-wash of solid cement concrete at each end of the embankment. As constructed, the reservoir has a capacity of 3,940,719,000 gallons, and a maximum depth of 30 ft. At overflow level the area covered is 1,740 acres.

The water is pumped to Broken Hill through 10½ miles of pipes of 14 inches, 16 inches and 18 inches internal diameter. The pumping plant consists of two 9—12—21 x 15 x 8½ Triple Expansion



The Reservoir when Full in 1905.



"The Whim," Stephens' Creek.  
The great hunting ground for Picnic Parties.



## Darling River Railway League.

The Darling River Railway League have come upon the scene with the proposition to construct a light line of rail between Broken Hill and the Darling River at Menindie, a distance of about 65 miles; and, although the construction of such a line would not avert a water famine, it would, however, considerably mitigate its grievous inconveniences.

Looking the matter squarely in the face, the project should prove a great boon to the city of Broken Hill. There are many advantages to be spoken of in its favour, but the two vital points are:—

1. That Broken Hill would be connected with the nearest permanent water supply in the event of a water famine.
2. That Menindie and the adjacent country is admirably adapted for irrigation purposes. At present Broken Hill pays away considerably over £100,000 annually for produce, fruit, butter, eggs, &c., whereas, if the proposed line was constructed, Menindie would eventually become the Irrigation Colony from which Broken Hill could reasonably expect to receive these supplies, at nearly half the present cost, as well as become the rendezvous for those who wish to recoup their health, or enjoy a rest amid pleasant surroundings.



Camels on their way "Out-back."

# *Kidman Bros.,*

PREMIER BUTCHERS,

Argent Street, North and South.

Telephones 87 and 54.

Prime  
Quality.

Lowest  
Prices.



Your  
Needs  
Studied  
and  
Satisfied

Continuous Supply of Fat Stock arriving periodically from their many Queensland and South Australian Stations.

---

*Improvements* in our *Refrigerating Rooms* place these on an *equality* with any similar rooms in the *Capital Cities*. We are specially able to give you *better service* than can be *elsewhere obtained* during the *summer months*.

---

Our *Smallgoods Department* receives our special attention, everything used of the *best*, made up with *carefulness and cleanliness*. *Quality* cannot be excelled anywhere.

---

**NOTE.--Deal with us and receive Satisfaction.**





Mrs. Birkell  
(the First Matron).



Dr. Henry Firth Groves.



Miss von Puttkamer  
(The First Nurse).

## Broken Hill and District Hospital.

The first Hospital at Broken Hill was of rude construction, and, under the superintendence of Dr. Sutherland. In June, 1887, a new Hospital was opened, on the site where the jail now stands. This was a small wooden building, containing six beds, and was managed by a committee comprising Messrs. Justin McCarthy, Williams, Bristowe, McHenry Clark, Chapple, Edwards, Hosking and King.

Typhoid being very prevalent, a big tent was erected to hold the patients. A sum of £250 had been collected in Melbourne by Mr. W. R. Wilson, and forwarded to the then Secretary, Mr. Ophel. A tender for £78 was accepted for the erection of Matron's quarters, and on May 4, 1888, Mrs. Birkell was appointed Matron at a salary of £3 per week; the services of day wardsman and assistant were dispensed with, and a female nurse and one wardsman engaged in their place.

Miss Von Puttkamer, the assistant nurse, who had had considerable experience in Adelaide and Melbourne, arrived from the former place on the 16th, and immediately entered on her duties. The name of Broken Hill at this time was synonymous with typhoid fever, fires and drought, and the few who constituted the Hospital Staff had their hands more than full, and laboured early and late in their endeavour to alleviate the sufferings of those of the sick who were entrusted to their care. Standing out prominently was Dr. Henry Firth Groves, ever to be remem-

bered with kindly feeling and respect by all who came in contact with him; the man who gave his time free, besides supplying all the medicine, and often helping the institution along with money from his own pocket. No one can forget those rough hard days—a temporary fever ward was erected, which took the place of the tent, and the patients were more comfortably housed in their new quarters.



Broken Hill Hospital, showing New Operating Theatre on the Left.

Early in 1889 Miss Von Puttkamer resigned her position, much to the regret of the people of Broken Hill, who had become devoted to her, for the unremitting care and attention bestowed upon the patients, and for the skilful way in which her duties were performed.

Broken Hill, however, was fortunate in not losing her, for shortly afterwards she married a Mr. Robertson, and opened a private hospital on her own account. To-day Nurse Robertson's Hospital, in Chloride Street, is known all over the Hill.

The figures expressed on the present Hospital building—1889—declare the opening year. Several additions have been made, including an isolation ward, and the contractor is now busy erecting new nurses' quarters, costing £2,700. This follows closely on the completion of the splendid operating theatre of most modern date, furnished

with a complete range of all the latest and best appliances. President V. F. Stanley Low has a good Committee, and an energetic Secretary, Mr. Edwd. L. Dumaesq. In addition to the well-known Resident Medical Officer, Dr. L. L. Seabrook, there are two Honorary Physicians and two Honorary Surgeons. Miss Jane Walsh, Matron, has a competent staff of nine nurses and five probationers. The expenses in 1906 (£7,679) were more than met by the Government grant and subscriptions, and finances generally are sound. A donation of £10 qualifies for Life Governorship. The 76 beds last year contained an average of 51 patients—totalling 724. The new plantation on the rising ground in front of the building beautifies an ideal situation. The reputation of the Hospital is high, and two functions, which permit of public patronage and support—the Annual Ball and Hospital Sunday—are well sustained.



Fire Brigade Board.

J. M. Lamborne (Superintendent).		H. W. James (Secretary).
J. Sully (Rep. the Government).	C. Chester (The Mayor).	J. M. Stephens (Rep. the Insurance Companies)



## Broken Hill Fire Brigade.

The great Argent Street fire in 1888, besides facilitating the erection of more substantial buildings in that thoroughfare, was followed by a gradual but decided improvement in the Brigade.

The first body got together, though purely volunteer, worked effectively within its limitations under Captains R. Fullerton, C. Charteris, W. Hughes, F. Berry, S. Solomon and S. Dewar, but the present efficiency, commencing with the appointment of the first Superintendent, H. R. Hansen, has been due to Superintendent J. M. Lambourne, who took charge seven years ago and still has the helm.

There are five permanent and eighteen auxiliary firemen in residence at or near the Main Station or South Branch. The plant includes a steam fire engine, a currie engine, 45 ft. ladder, two hose carts, a pair-horse hose waggon, and five good horses. A controlling Board represents the Council (by the Mayor), the Government (by Mr. John Sully, the "Father" of the Brigade), and Insurance Companies (by Mr. J. M. Stephens), which equally contribute the finances.

The highest number of calls, 90 in 1902, curiously enough preceded the lowest number—33 in 1903—whilst the average is 60 per annum.



Group of Firemen.



The Fire Station and Turn Out.

fective help to sufferers from accident. The sight is sadly familiar in the streets of the noiseless four-wheeler bearing some unfortunate carefully and expeditiously home or to the Hospital.

Of the 315 Victoria Ambulance calls last year, 257 were from the mines. The hazards of a miner's life are evidently great, and the little streamer which now and again floats half-mast from the Trades' Hall staff indicates that some accidents are not without fatal result.

The duplicate stretcher system (in use at each mine) minimises handling the injured. Private cases of non-infectious sickness are dealt with when required.

Trustees, of whom Mr. G. C. Bowen is Hon. Secretary, have relegated the management to the Fire Brigades' Board, for the annual sum of £150, and the Brigade Station is quite a convenient centre for this serviceable auxiliary, which is always in readiness day or night.

The present Trustees are Charles Chester (the Mayor), Jas. Hebbard (representing the Mine Managers' Association), Dr. J. F. Bartley, A. S. Knight and G. C. Bowen, J.P., while W. D. Barnett acts as Hon. Treasurer, E. A. Archibald as Hon. Auditor, and G. C. Bowen, J.P., as Hon. Secretary.



The "Victoria" Ambulance Waggon.

## The Broken Hill Benevolent Society

is the only recognised charitable institution in the city. It is non-sectarian, and takes into account all deserving cases of distress, irrespective of color, race or creed, and thus receives the unanimous support of all sections of the country.

The Society is managed by a Committee of 24 and a Secretary—twelve gentlemen, of which six are clergymen (one from each denomination), the other six being nominated by the townspeople—and twelve ladies, who are also nominated in the same manner.

The town is divided into twelve districts, each lady being apportioned a district, and any person needing

Hot summer is harvest time for fires, and the sounding of the alarm bell and mines whistles always begets ready response and determined effort from the fire-fighters.

## The Ambulance.

The ambulance waggon, "Victoria," purchased with surplus money from the Barrier celebrations of our late Queen's Jubilee, and maintained by the Government, who give a special grant of £25 per annum—the mining companies, who pay at the rate of 30s. per hundred men employed—and contributions from the Silverton Tramway Company—their employees—the Globe Timber Mills—racing clubs, &c.—renders most ef-



# DURIEU STORES

**R. V. WILSON, Proprietor,**

**Wholesale and Retail Grocers, Tea and Coffee Importers  
and Blenders, Italian Warehousemen and  
Colonial Wine Merchants,**

**ARGENT STREET, BROKEN HILL.**



Interior View of the Store.

**Terms—Cash.**

**Telephone—64.**

**Stores, Teamsters, &c., Supplied at Wholesale Prices.**

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NOTE.--Great care and supervision is exercised by the management to ensure their Goods being of the Best Quality, which requires no further recommendation.

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**ONE ADDRESS—**

**DURIEU Stores, R. V. WILSON, Proprietor, Argent St.**



**Committee of Benevolent Society.**

Back row—Rev. W. W. Finch (Methodist) Rev. W. R. Milne (Presbyterian) A. Godden (Treasurer) H. W. James (Secretary) Rev. Denzil Herring (Church of England)

Middle row—Rev. A. W. Wellington (Methodist) Mrs. Cave Mrs. McDougall Mrs. Eiffe Mrs. Jackson Rev. Father Connolly (R.C.)

Front row—A. H. Costins Mrs. Moore Mrs. Fairclough C. T. Hyde (President) Mrs. G. C. Bowen (Vice-President) Mrs. Lawton M. Mannheim

Sitting in front—Mrs. Bishop Mrs. Pincombe.

relief is immediately referred to the Lady Visitor who controls the district in which they live. All cases needing and receiving relief are regularly reported at the fortnightly meeting of the Board, and each one thoroughly investigated, so that none but genuine cases may be helped.

The Society distributes nearly £1,000 annually in relief, and all the work done is honorary, with the exception of the Secretary.

The Society, by the system adopted, has been brought to a state of perfection, and may be looked upon as one of the ideal charity societies of the world, which reflects great credit upon the officers and committee. Persons subscribing to this Society may rely that their money will be rightly distributed.

The present officers are:—President, C. T. Hyde; Vice-President, Mrs. G. C. Bowen; Treasurer, A. Godden; Secretary, H. W. James.

## The Orphanage,

situated on Convent Hill, and adjoining the Convent School, has been established for about 10 years. The institution is under the direct management of the Sisters of Mercy, and entirely supported by public subscriptions. All orphans, no matter what creed, are admitted, their only passport of admission being their poverty.

It was "washing day" when the writer arrived, and witnessed with interest the little "kiddies" as they each went about in a quiet methodical way performing their several duties. Everything around was scrupulously clean and in perfect order, showing only too plainly how well they had been trained by the Sisters.

The accommodation has to be limited to about 25, on account of the smallness of the building, and it is to be regretted that more people do not come forward and help such a deserving cause.

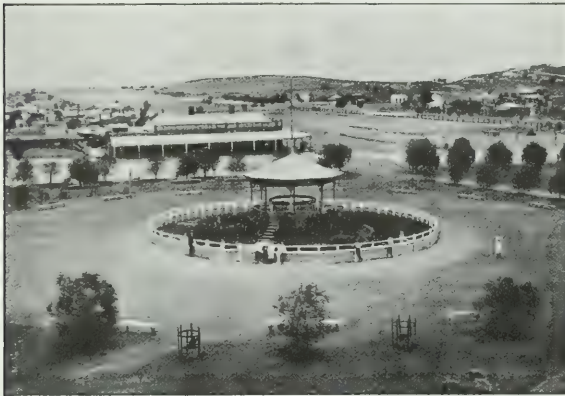


The Orphanage.



## *The Broken Hill District Nursing Association* (Established April, 1906)

originated first in a suggestion from Dr. Booth that the Benevolent Society might undertake to provide a properly trained certificated nurse for work among the sick and infirm poor, for whom there was not sufficient Hospital accommodation and no Benevolent Asylum. The public quickly recognised the importance of the proposal, and a guarantee of £25 yearly from the Social Democratic Club enabled the Benevolent Society to engage Nurse Edwards, in March, 1905, but the Government refusing to subsidise this branch of the work, an independent Association was formed, with the Mayor (Alderman T. Ivey) as first President, and a committee of nine gentlemen and nine ladies.



Hillside Rotunda.

supplies medicine, cod liver oil, disinfectants, bandages, &c., and lends various nursing requisites to destitute patients.

The expenditure averages £25 per month, and is met solely by voluntary contributions.

## *Barrier Boys' Brigade* (Established October, 1898).

**Objects.—The Spiritual, Moral, Social, Physical and Intellectual Improvement of its Members.**

The Barrier Boys' Brigade (generally known as B.B.B.) is amongst the chief of Broken Hill institutions. Established some nine years ago as the result of a strong feeling which existed in the minds of a number of leading citizens that something should be done to keep the boys of the city off the streets at night, and give them some profitable employment for their leisure time, the Brigade has since carried on a highly successful work amongst the boys. The present President, Mr. E. J. Horwood, has held that office since 1904, and the present Secretary, Mr. J. C. Butler, was appointed in 1899.

The Brigade takes boys between the ages of 10 and 18 years (the most valuable years of their lives), and en-

deavors, by means of the various agencies at its command, to make good, clean, upright citizens of them. The institution is controlled by a Board of Management of 24 representative citizens, with a paid secretary. The members of the Board are elected for a term of 3 years. Eight members retire annually, but are eligible for re-election. Two of the eight are elected by the boys themselves, three by the remaining

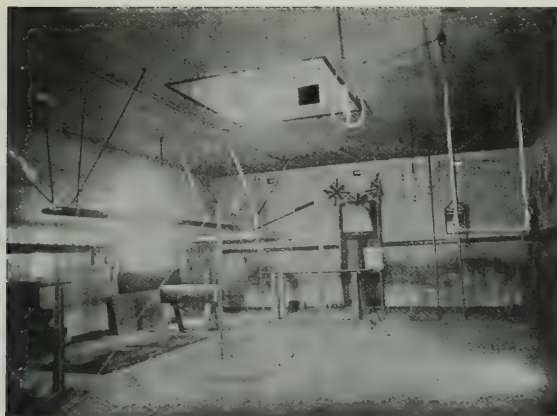


"B.B.B."



The Library.





The Gymnasium.

baths attached; a Reading Room; a Lending Library containing over 800 books: games rooms, well stocked with table games, bagatelle, rope quoits, etc.: and football and cricket clubs are amongst the chief agencies employed. The religious element is supplied by Sunday morning and afternoon boys' services of an unsectarian character.

By the payment of an additional shilling per quarter, members may join any of the educational classes attached to the institution, such as Reading, Writing, Arithmetic, Book-keeping, Shorthand, Drawing, Ticket-writing, etc. The Brigade is supported chiefly by public subscription. Its income is about £400 a year, and the fact that its funds have been so consistently subscribed to for so many years is one of the best proofs of the recognised value of its work. New subscribers, however, are always needed and welcome. The institution is growing, its agencies are increasing, and, with the extension of its work, more money is needed to successfully conduct its operations.

## Broken Hill Mining Managers' Association.

The Broken Hill Mining Managers' Association has been in existence for a period of 21 years, and was formed chiefly through the efforts of Messrs. S. R. Wilson and Z. Lane.

The inaugural meeting of this body took place on October 26, 1886, at the offices of the Broken Hill Proprietary Company, and was attended and launched on its career by nine of the early day mining managers—Messrs. Wilson, Morrish, King, Lane, Piper, Matthews, Ellis, Foster and Morgan.

The institution was originally created as a branch of the Amalgamated Mining Managers' Association of Victoria, and styled "The Barrier Ranges Mining Managers' Association." This title has since been altered to "Broken Hill Mining Managers' Association."

The following members officered the body at its formation:—President, Mr. W. H. Morrish; Vice-President, Mr. S. R. Wilson; Secretary, Mr. Z. Lane; Treasurer, Mr. W. H. Matthews.

Shortly after the opening of the Association, the then Secretary (Mr. Zebena Lane) journeyed to Ballarat, and completed negotiations

members of the Board, and three by direct subscribers of 10s. or more per annum.

The present Board is as follows:—**President**, E. J. Horwood. **Vice-Presidents**: Messrs. C. T. Hyde, W. E. Gardner, J. Copley and E. H. Fromen. **Treasurer**, M. Doyle. **Minute Secretary**, F. W. Wickes. **Committee**: Messrs. G. D. Delprat, G. Struthers, J. B. Ferguson, G. A. Chapman, J. C. Cunningham, Chas. E. Moore, Thornton Pearson, T. J. Jacka, P. T. Lewis, J. L. Berry, E. V. Woodman, A. Sumsion, and Revs. N. D. Herring and A. W. Wellington.

The members of the Brigade, of whom there are over 200, pay a nominal fee of 1s. per quarter, but needy boys are always admitted, both to the Brigade and the Brigade classes, free of charge. The means used to attract boys to the Brigade and then keep them there are numerous. A well-equipped Gymnasium, with dressing room and shower



The Great Fire in Argent Street in 1888.

# The Leading Tobacconist of Broken Hill.



## LAWRENCE'S THREE SHOPS

Grand Hotel Shop-Argent St.

Tobacco Box Shop-Argent St.

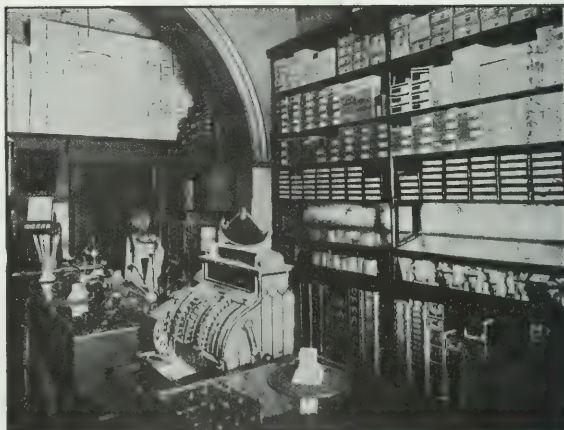
South Broken Hill Shop  
Patton St.

A glance at the photos here shown of two different portions of my establishment leaves nothing to be said of the enormous stock I carry, which consists of cigars from 10 for 1s. 6d. to High Class Havannahs at 1s. each.

Pipes from Cherry Pipes at 2 for 3d., to the very best that come to Australia, gold and silver mounted, as high as 40s. each.

Also Companions of 2, 3, and 4 Pipes in a case, from 12s. 6d. to 45s. each.

There have been 100,828 persons purchased goods in my three establishments during the last six months. This proves conclusively the above statements, and that



# LAWRENCE'S

IS

## The Leading Tobacconist.





Argent Street in 1907.

the hands of the following officers:—President, Mr. G. D. Delprat; Vice-Presidents: Messrs. E. J. Horwood and Jas. Hebbard; Hon. Sec., Mr. W. E. Wainwright; Trustees: Messrs. C. F. Courtney and T. G. Sweet.

Following are the successive Presidents:—Messrs. W. H. Morrish, Rd. Piper, W. H. Mathews, J. Howell, J. Warren, C. J. Klug, R. Adams, A. Stewart, J. Warren, C. F. Courtney, G. D. Delprat. Mr. Delprat, the present occupier of the Presidential chair, has been the President of the Association during the last six years.

Successive Secretaries since the inception of the Association are:—Messrs. Z. Lane, Uriah Dudley, G. Smith, E. J. Horwood, T. G. Sweet, A. M. Wilson, W. E. Wainwright.

The Companies represented are:—

- |                                                |                                                  |
|------------------------------------------------|--------------------------------------------------|
| 1. Broken Hill Proprietary Co., Ltd.           | 10. B. H. Junction North S. M. Co. No Liability  |
| 2. B. H. South Silver Mining Co., No Liability | 11. Broken Hill South Blocks Ltd.                |
| 3. Sulphide Corporation Ltd.                   | 12. New Australian Broken Hill Consols Ltd.      |
| 4. Broken Hill Prop. Block 10 Co., Ltd.        | 13. Pinnacles Broken Hill Mine Ltd.              |
| 5. British Broken Hill Prop. Co., Ltd.         | 14. Rising Sun S. L. M. Co., No Liability        |
| 6. Silverton Tramway Co., Ltd.                 | 15. De Bavay Treatment Co.                       |
| 7. Broken Hill Prop. Block 14 Co., Ltd.        | 16. B. H. North Extended S. M. Co., No Liability |
| 8. North Broken Hill Mining Co., No Liability  | 17. Zinc Corporation Ltd.                        |
| 9. Broken Hill Junction Min. Co., No Liability |                                                  |

Recently the Mining Managers met the Combined Trades Unions' delegates in conference, as a result of which an agreement was signed, and registered in the Arbitration Court, giving an increase in wages as under:—7s. 6d. and under, 15 per cent. increase; over 7s. 6d. and not exceeding 8s. 4d., 14 per cent. increase; over 8s. 4d., 1s. per shift inclusive.

The following conditions were also set out:—48 hours shall constitute a week's work; 6 recognised official holidays during the year; all time worked over 48 hours per week shall be paid for at the rate of time and a quarter; Sundays and official holidays also paid for at rate of time and a quarter.

The agreement was made for a period of two years from January 1, 1907.

As a result of the conference, provision was made for a combined committee, to which all disputes between the management and employees of any mine are referred.

with the Central Secretary at that city, relative to the interchange of papers, etc., read at the various meetings.

During the earliest periods of the Association, meetings were, to suit the convenience of members, alternately held at Broken Hill and Silverton, the meetings at the former place being conducted at Reynolds' Exchange Hotel, and from there they were later transferred to the Grand Hotel.

In January, 1888, a delegate was sent to Victoria to represent the Barrier Ranges at a conference of the Victorian Mining Managers.

The Association in 1891 was particularly strong, numerically, having close on 100 members.

Seceded from Amalgamated Mining Managers' Association of Victoria in October, 1903.



Central Reserve on Hospital Sunday.



## Barrier Ranges Horticultural Society.



Back Row.—A. Sara, E. H. Fromen, E. H. King, W. Benheim, J. Glanville.  
Sitting.—J. March, H. W. James, C. G. Hylton, O. Von Rieben, A. W. Lowe.  
Secretary. Chairman. Past Secty.  
T. J. Kitchen.

It is very refreshing to witness one of the annual displays arranged by this Society. In an arid district so much variety and excellence of bloom would not be expected, but the floral enthusiasts have done exceedingly well. Hot winds and dust storms occasionally interfere with both private gardening and show fixtures, but sufficient has been accomplished to discover what might be and would be done assisted by an adequate general water supply.

Captain John Warren was first President (1894), and Mr. O. Von Rieben, for twelve years Honorary Secretary, has only recently retired in favour of Mr. H. W. James. Mr. Cyril G. Hylton is President.



## The Pastoralists' Association

of West Darling, has lately been formed, with its head-quarters at Broken Hill, the members of its Council being all prominent pastoralists in the district, with H. L. Hosier as Secretary.

## Medindie Pastures' Protection Board.

The members of the Board are F. R. Hamilton (Chairman), J. W. Brougham, W. Dawes, J. Dunne, H. W. Hughes, J. Kenworthy, E. Andrews, C. H. Say. The Inspector of Stock is A. Gillings, while H. L. Hosier acts as Secretary.

## The Broken Hill Caledonian Society

was inaugurated in 1894, at the instance of Mr. Waugh and Mr. Strachan, and the first meeting took place in the Centennial Hotel on August 17 of that year, when Mr. Strachan occupied the chair, and explained the lines on which it was suggested to run the Society, with the result that those assembled all agreed to form the nucleus of the Caledonian Society.

Sports are held every year on their national day (New Year's Day), and from the inception excursion picnic trains have



Past Chiefs of the Caledonian Society.

Front Row.—J. P. Megaw, L. Cohoun, J. R. Holding, A. G. Marshall, W. A. Waugh.  
Present Chief.  
Back Row.—A. Anderson, Hugh Stevenson.



Front Row.—A. E. Anderson, Chieftain Hamilton, J. R. Holding, Tom Marshall, J. P. Megaw.

Back Row.—

A. Anderson, A. G. Marshall, W. A. Waugh, L. Cohoun, Hugh Stevenson.

"The Cock o' the North," speak with volumes of smoke added.

During the South African war the Society sent home to Edinburgh £109 to relieve the widows and orphans of the soldiers belonging to the Highland Brigade who fell in the Magers-fontein disaster.

The removal from Piershill of the Scots Greys, one of the oldest and most famous of cavalry regiments, was not accomplished without the strongest protest from the Society, in conjunction with the St. Andrew's Society, Edinburgh.

During the 13 years of the Society's existence the following have been Chiefs in their consecutive order:—George Strachan (2 years), W. A. Waugh, J. B. Sands, John Souter, J. H. Linton, Duncan M. Maclaren (died April, 1901), Acting Chief Alex. Anderson, Alex. Gordon Marshall, L. Cohoun, J. McIntyre, Hugh Stevenson, J. P. Megaw, A. W. Catto. The present Chief is J. R. Holding, with W. A. Waugh as secretary.

## The Silver City Show

was founded in 1900 out of the ashes of the Pastoral and Agricultural Society. A coterie of seventeen enthusiasts put their hands in their pockets to the extent of £10 each and promoted the show.

M. P. Quinn was the first President, with E. McLaughlin Treasurer, and J. P. Megaw Secretary, the last two having held office from the commencement.

The President this year is Mr. L. Cohoun, who held the same office in 1902-3, and has been committee-man from the inception, while Mr. G. D. Delprat, of the "Big Mine," is Patron.



Sitting.—F. Gilbert, J. P. Megaw, L. Cohoun, E. McLaughlin, A. Malthouse.  
Past Pres. Secretary. President. Treasurer.

Back Row.—A. S. Kidman, J. Maxton, R. V. Wilson, S. Renton, J. H. Raynor, P. J. Jonas, F. W. Read.

been run to the sports ground. The first sports were held at Yancowinna, and proved a big success—so much so that the management combined amateur horse racing with their three subsequent meetings, which were held at Silverton.

McCulloch Park is now the scene of their operations, and the large gum trees in Stephens' Creek afford ample shelter for picnickers, consequently it has become a favourite resort, the horse racing having to be abandoned, as it is not allowed at the Park.

When Federation took place, the Caledonians had the honour conferred upon them of unfurling the Federal flag on the Barrier. Mrs. D. M. Maclaren, wife of the Chief of that year, held the ribbons, and allowed the bunting to fly free in the Federal breeze, after which a squad of riflemen fired a salute, and a party of "Jack Tars" made their big gun, "The Cock o' the North," speak with volumes of smoke added.



# **BOAN BROS.,**

## ***ARGENT ST., BROKEN HILL.***



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Drapers, Clothiers, and  
Boot Warehousemen . . .***

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**AND AT . . .**

**Wellington St., Perth, W.A.**





The President, Mr. L. Cohoun.



## *Broken Hill Freemason's Co.*

This Company was formed in 1896, with a capital of £4,000, in shares of £1 each, all issued and fully paid up. The Lodges own £3,000, and private members £1,000. The Company own the whole of the Masonic buildings (as per photo), which are clear of debt. It is the intention of the Directors to shortly complete the buildings, and make the outside worthy of the well-equipped interior. The Masons have organised a Masonic Benevolent Fund, and this is not confined to the Order, this year £40 being given to public charities and institutions.

The Masonic Club has 160 members, and provides a reading, writing, and billiard room, lounge, &c., well assorted with current literature. A lending library on a large scale will shortly be instituted. The following Masonic Lodges have been opened on the Hill:—

Mother Lodge, Umberumberka, No. 141, opened at Silverton, October 17, 1885 (now meets at Broken Hill).

Barrier Lodge, No. 173, opened 1888.

Willyama Lodge, No. 178, opened 1888.

Broken Hill Lodge, No. 199, opened 1891.

Barrier Chapter Royal Arch Masons, opened July, 1890.

Barrier Mark Lodge, opened June, 1891.

Barrier Royal Ark Mariner, opened May, 1907.

Broken Hill Chapter Rose Croix, opened May, 1904.

Broken Hill Preceptory, attached to the Great Priory of England and Wales, opened 1904.



Masonic Club.

## *Barrier Social Democratic Club.*

For two or three years preceding the early part of 1902, there existed an organisation in Broken Hill, formed for the purpose of propaganda and education on the lines of Socialistic thought. Through apathy, this Association died a natural death early in 1902. In the early part of 1903, a small band of workers decided to revive the defunct Democratic Association, and held a meeting of those interested in the movement in the Trades' Hall on Sunday, July 19, 1903, at which about 40 attended. It was decided to form what should be known as the **Barrier Social Democratic Club**, with the following objects:—The education of the people in the principles of Social Democracy, by holding meetings and circulating literature; establishing a club-room, book depot, and reference library for the use of members. The following were elected officers for the new club: J. Pool (President), G. Dale (Vice-President), T. H. Hogan (Secretary and Treasurer), while G. Matthews, C. Knaust, C. Coulls, A. Knight and R. S. Ross formed the Committee, suitable premises having been rented in Sulphide St.

On March 13, 1904, a meeting was called, at which 52 joined as foundation members. A new set of rules was adopted, the entrance fee being fixed at 1s., and a subscription fee of 1s. a month for male, and 1s. per quarter for female members. It was decided to open club-rooms on the following day. Mr. T. Hogan was appointed secretary and chief steward, and Mr. C. Coulls under-steward.



Back Row (left to right).—

G. Matthews, E. S. Carter, J. F. Scott, D. Tweedie, T. Pollok, J. Ryder.

Front Row.—T. Burrows, T. H. Ripper, Jabez Wright, J. H. Byrne, R. Isbell.  
Vice-President. President. Secretary.

tial stone one, is divided into reading room and library, with offices and committee rooms. The large wood and iron building at the rear is divided into refreshment bar, billiard room (with three billiard tables), card, chess and draught room, music and lecture room (with Beale piano, &c.).

The Club has an up-to-date library of reading matter, including a circulating department of over 600 volumes of fiction and socialistic literature, while its reading room is supplied with the leading papers and magazines of the world.

Since its inception the Club has been a powerful aid to labour unionism on the Barrier—every applicant for membership has to sign a declaration of his adherence to the objects of the Club, and of his intention to vote for solidarity Labour candidates. On several occasions the Club has financed the expenses of bringing Labour politicians to Broken Hill to speak on matters of current Labour interests. The Club is responsible for having a trained nurse for the poor of Broken Hill, by donating £25 a year to the Benevolent Society for this purpose, and it contributes generously to the local Orphanage and all charitable institutions.

The present membership is about 400, although at one time it ran into thousands, but the legislative enactment, known as the New Liquor Act, with its provisions for Sunday closing and compulsory subscription of £1 per annum, naturally reduced its working class membership.

This was the starting point of the Club's marvellously successful career. The first premises were divided into a refreshment bar, a card and music room, a reading room and library, and a book sales department. It was soon found necessary to have additional premises; a billiard room was secured, and another large shop rented, into which the reading room and book sales department was transferred. The membership rose so rapidly that the management, through lack of sufficient accommodation, were faced with the question of removing to larger premises. It was decided to accept an offer of premises in Argent street for £2,500, payable with interest, in instalments extending over four years, and in October, 1904, the Club removed to these premises, where they are still located.

The land consists of a quarter of an acre, the front building, a substan-

The foundation Secretary, who resigned at the close of the year 1906, was presented, on his departure for Melbourne, with an illuminated address and a handsome service of plate, his position being filled by Mr. J. H. Byrne, a former steward.



## *Silver City Workingmen's Club.*

In November, 1900, about a dozen working men, mostly employed on the "Big Mine," met at the Barrier Club Hotel, and formed the nucleus of this Club.

Having obtained suitable premises in Iodide Street, the members were astounded one Saturday night to find a force of police, who took possession of the premises, and duly charged the officials with unauthorized liquor trading, and fines to the amount of £106 were inflicted, and a small quantity of the liquor confiscated.

A reconstruction quickly followed. The members considered that the working-man was as fully entitled to his Club as his more prosperous fellow-man, and, wishing to be honourable in their actions and discharge the heavy liabilities owing on all sides, they installed an entirely new committee and staff, and in about three months removed to the present site, under a twelve months' lease, with the right to ultimate purchase.

By the end of 1902, the Club had become very popular, and the membership greatly augmented, as a result of the new and excellent management.

The Committee then decided to place the whole of the members' monthly contributions towards the purchase of the property, and it is praiseworthy to note that, before the expiration of 1903, the trustees were in possession of the freehold property.



Standing.—  
J. Adam, R. Brennan, L. Treneman, C. Alford, D. J. Campbell, T. McGough.  
Sitting.—  
W. Keelty, J. Sherlock, E. Baker, A. Hunt, C. McGillick, J. Du Mont, J. W. Rowe.  
Vice-Pres. President. Secty.  
Front.—M. Kenny, T. S. Jones.

Improvements were at once inaugurated, and considerable monies expended from time to time, in improving the place and providing more comforts for the members. Special attention was also given to the library, and a free circulating library was placed at the disposal of the members and greatly appreciated, and to-day the Club can boast of a library second to none in Broken Hill.

A contract has just been let for the erection of a large billiard room, to hold two first-class Alcock's billiard tables, and this, with the games and amusements of all kinds provided, speaks well for the Committee in studying the social and mutual improvement of the members.

Six years ago the Club started with practically nothing, thus providing a splendid object lesson on co-operation to the working-men of Broken Hill, by demonstrating in a practical manner how the profits of the liquor trade can be utilised for the benefit of themselves, when it is remembered that they possess free and unencumbered property to the value of £2,500, for a membership of 250 bona fide working-men.

A feature of this Club is the number of teetotallers on the roll, their number nearly reaching one-third.



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**W. J. Fuss.**

**J. E. Tregoning.**

**198 Argent St., Broken Hill.**

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Coppers and Casings, Baths and Fittings, Tanks, Skylights, Sanitary Pans,  
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**FUSS BROS., 198 Argent St., Broken Hill**

## ***Broken Hill Jockey Club.***

The early history of horse racing on the Barrier would be very interesting reading to the sports of pigskin, and although it will be impossible to give anything like a fair description in this book, we can furnish a few interesting facts. For instance, it was in the year 1884 that the first step was taken to form a Racing Club at Silverton—



Committee of the Broken Hill Jockey Club.

then the hub of this mining district. At a meeting held, a committee was appointed to arrange for a meeting on New Year's Day following, and the late Mr. A. E. Gliddon took a leading hand; and it was decided to form a Club, to be called "The Barrier Ranges Jockey Club," the membership to be £3 3s. Later on in October, at a meeting (when about twenty gentlemen attended) £120 was subscribed and over £200 promised towards the funds. Officers were chosen, and ten gentlemen appointed as a committee to arrange a programme for the New Year's Day events, the result of which was that six events were set down to be contested, viz.:—Miners' Purse (weight for age), £20; Handicap Hurdle Race, £25; New Year's Handicap, £50; Shorts (half-mile weight for age), £20; Consolation

Handicap, £20; and a Flutter for Hacks, £10. Thus the foundation was laid for the noble sport of horse racing on the Barrier, and it has continued, notwithstanding many setbacks, to grow in popularity and strength up to the present day, when the joint Clubs of the Broken Hill Jockey Club and Licensed Victuallers' Racing Club provide three days' racing and a programme of £1,450 jointly for their winter meetings.

The first meeting of the Broken Hill Jockey Club was held in June, 1886. Mr. Hughes is Handicapper for both the Broken Hill Jockey Club and the Broken Hill Licensed Victuallers' Racing Club, and the racing public have respect for this gentleman's opinion generally. The present secretary, H. L. Hosier, has now been in office nine years, and it is admitted on all hands that a more painstaking and able secretary would be hard to find.

## ***Licensed Victuallers' Racing Club.***

The present course, which is three miles from Broken Hill township, is approachable by road or rail, and is 1¼ miles long. It was surveyed by Mr. Dawson, surveyor, of this city, and was originally the property of the Broken Hill Jockey Club solely; but, by an arrangement between that Club and the Licensed Victuallers' Racing Club, it is now managed by a joint committee of the two Clubs—an arrangement that has proved mutually satisfactory, and resulted in vast improvements in the accommodation.

The birth of the Licensed Victuallers' Racing Club dates from October 5, 1897, when a number of licensed victuallers met and decided to hold a race meeting on the Show Grounds, at which 110 sovs. were given in stakes. It was not until February 20, 1900, that the Licensed Victuallers' Racing Club and the Broken Hill Jockey Club became joint managers of the present course, the control of which is regulated by a committee of management, four delegates from each club forming the Board. A pleasing feature of the partnership is the healthy spirit of rivalry existing between the two Clubs.

The principal improvements effected during the past two years are the erection of a running rail around the entire course; building a Derby stand; enlargement of saddling paddock to fifty-seven stalls; erection of scratching board; ambulance room and equipment for first aid; refreshment bar; and the fencing of the steeplechase for nearly the whole length of the straight, thereby protecting the public from encroaching on the running track.





Committee of the L.V. Racing Club.

Back Row.—A. W. Borchers, C. Webster, J. Lees, J. Goffage, S. Barnett.  
Treasurer. Secretary.

Oscar Barnett, J. H. Gordon, O. J. O'Neill, T. McFie, J. F. Henderson.  
Chairman.

The paid staff of the Club is composed as follows:—**J. Coffage**, Secretary; **P. H. Jonas**, Starter; **P. N. Rayner**, Clerk of Course; **W. A. Frazer**, Judge; **J. P. Megaw**, Clerk of Scales; **H. Hughes**, Handicapper. **Mr. W. Gordon** is the Club's agent in Adelaide, while **Mr. H. T. Sutton** occupies the same position in Melbourne. The Club will hold meetings in May and July, 1908.

### *Broken Hill Gun Club.*

This Gun Club was founded about the year 1897, and amongst some of the old members were Messrs. H. H. Schlapp, W. N. Hedges, A. E. Nott, W. Lowe, John Lees, A. De Baun, F. Smallpage, W. J. Player, J. Bristowe, Chas. Clarke, G. W. Simpson, etc.

On January 26, 1898, at the Silverton racecourse, Mr. W. J. Player won a silver cup presented by John Penrose, the then Mayor of Silverton, for the Championship of the Barrier (open), shooting 29 birds out of a possible 30.

A pigeon match is held annually against Port Pirie, the Club having won 6 matches to their 4 up to present date. At the racing carnival of every year, two open handicaps of £30 and £20 are shot for; last year the first was divided, the second being won by W. J. Player.

The Club often receives visits from some of the best shots in the Commonwealth, but can hold its own against all comers. The photographic group comprises four of the leading lights of the Club.



Dr. McGillivray, G. Bartlett, Anthony Hall, W. J. Player,  
Hon. Sec. President.

Amongst the improvements contemplated are the construction of reservoir capable of storing two million gallons of water; new grandstand, fitted with up-to-date improvements; also many minor details of construction.

The course is connected by telegraph, and on race days one line is reserved for Adelaide, the other being used for local and country requirements.

The starting machine in use is the "Burns," and has been eulogistically commented upon by expert starters, who were most favourably impressed by its simplicity and quickness.

During the past year the Licensed Victuallers' Racing Club gave away in stakes £1,515, and its financial position is sound, having £1,000 at fixed deposit, also a very substantial credit account.





D. D. Murray  
Vice President.



E. McLaughlin  
President.



A. Sara  
(One of the Oldest members of  
the Club).



Sitting.—P. N. Rayner, A. Sinclair, J. Noonan, W. H. Batten, W. H. Birdseye.  
Back Row.—J. Whenan, E. McLaughlin, D. D. Murray.  
Hon. Secretary. President. Vice-President.

### *Broken Hill Polo Club.*

The Broken Hill Polo Club was started in 1899, B. C. Beasely being the organiser. The first polo sports were held in December of that year, and the first Cup was won by B. C. Beasely's "Fly," ridden by J. Whenan. The Club have been playing matches in South Australia during the last 18 years, and the last match played in Adelaide, on March 16 last, resulted in a win for Broken Hill.

J. Whenan, who acts as Captain and Secretary, has been a consistent and brilliant player since the foundation of the Club. E. McLaughlin, who has been President for the last 10 years, has done much to help on this healthy and enjoyable sport, while D. D. Murray, the Vice-President, has given his support, and shown considerable interest in the Club.



A few Club Members.

# Shaw & Co., Ltd.,

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BROKEN HILL. . .

## The Leading Jewellers,



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*Our great success is attributable to the fact that all our goods are purchased DIRECT from the Leading MANUFACTURERS, thereby saving all intermediate profits, and enabling us to give the*

**Best Values in Australia.**

*Every month we receive shipments of all the LATEST NOVELTIES, culled from the LEADING MANUFACTURERS OF ENGLAND, the CONTINENT, and AMERICA, thus, for WEDDING and BIRTHDAY PRESENTS, &c., we have always SOMETHING NEW and NOVEL TO SHOW, at a price within the reach of all.*

---

**SHAW & CO., Ltd., Argent Street, Broken Hill.**

## *Broken Hill Rifle Club.*

The first military Company was formed in Broken Hill in 1889, through the influence of a deputation, comprised of Zebina Lane, W. A. Waugh, A. Hamilton, J. R. Stewart, and Horace Plant, who interviewed the then Prime Minister, Sir Henry Parkes, on the occasion of his visit.

Their arguments in favour of a Reserve Company so thoroughly convinced the veteran statesman, that he at once promised his support, and the reservists were formed a few months after his visit.

The first officers were: Z. Lane, Captain; Justin McCarthy and Horace Plant, Lieutenants; W. A. Waugh, Secretary; and A. Hamilton, Drill Instructor and Sergeant-Major.

The reservists, through the retrenchment policy of the Government about 1893, were disbanded; the reserve corps then merged

into civilian rifle clubs, whose members did not require to take the oath of allegiance.

General Hutton, who had only a skeleton of an army, appealed to the feelings of the riflemen in such a way that he readily secured his complement of 25 men to again take the oath.

From 1889 to 1907, the Captains who controlled the Club were: Z. Lane, W. J. Koehler, G. S. Pitcairn, A. S. Knight and W. A. Waugh. Successive Secretaries were L. H. Beck and T. E. L. Virgo.

The Club at the present time is over 60 strong, and last year gained the honor of fifth position in the Teams' Match at the National Rifle Association meeting in Sydney, where there were 60 teams competing.

The Club runs Easter Matches open to all, this year's meeting being very successful, about £100 being shot for in prize money. The championship was won by J. J. Correll, of the West Rifle Club, the runners-up being D. G. Goldring and L. H. Beck of this Club, each only one point behind the winner.

The present officers are:—**Captain**, W. A. Waugh; **Hon. Secretary**, T. E. L. Virgo; **Hon. Treasurer**, A. Sumsion; **Range Captain**, C. Stoneman; **Handicapper**, A. N. Wilson; **Committee**: L. H. Beck, F. Travers, R. Beal, A. G. Wilson, and W. D. C. Bandinet.

Practices are held on Saturday afternoons throughout the year, and many enjoyable matches are shot against visiting teams from all parts of South Australia.



Back Row.—R. A. Robertson, A. Watson, J. Axtell, J. Lowrie, W. D. C. Bandinet.  
 Sitting.—A. Sumsion, T. E. L. Virgo, C. Stoneman, A. N. Wilson,  
 Hon. Treasurer. Hon. Sec. Range Captain. Handicapper.  
 F. W. L. Travers, W. Bunting.  
 Sitting on Ground.—L. H. Beck, A. G. Wilson.





## PARISH OF SOUTH BROKEN HILL, Railway Town.



St. Philip's Church.

Children's Services, 3rd Sunday in month, at 3 p.m.

Bible Class for Young Men, 3 p.m.

Sunday School, 3 p.m.

All Seats Free. All Are Welcomed.

Marriages Solemnized.

### St. Philip's, Railway Town.

#### SERVICES:

Daily Matin, 8 a.m. Holy Baptism, Friday, 5 p.m. Holy Communion, Wednesday and Saints' Days, 8 a.m. Litany and Address, Wednesday, 7.30 p.m.

#### Sundays:

Choral Eucharist, 11 a.m. alternate Sundays.  
Holy Communion, 8 a.m. alternate Sundays.  
Matins, 11 a.m. Evensong, 7 p.m.

VICAR: **H. Sholto Bishop,**

Gypsum Street, Railway Town.

### St. James', South Broken Hill.

**Sundays.**—Holy Communion, 8 a.m. alternate Sundays.

Matins and Choral Eucharist, 11 a.m. alternately.

Sunday School, 3 p.m. Evensong, 7 p.m. Litany and Address, Thursday evening, 7 p.m.

All Seats Free. All Welcome.

VICAR: **H. Sholto Bishop.**

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**WALTER SULLY, Merchant,**

Established 1882.

Telephone 6.

**Argent Street, Broken Hill.**

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**PREST & HOCKING, Ironmongers & Timber Merchants,**

Telephone 48.

**Argent Street, Broken Hill, and at Port Pirie.**

---

**TOM REID, Complete House Furnisher.**

Telephone 44.

**Argent Street, Broken Hill.**

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Front Row.—

Back Row.—E. Harris, L. Stephens, W. White, W. Jenkinsen, L. Allen, Marker.

F. Schurgott, J. Dewar, T. Crabb.

Sitting.—P. Knight, J. Sweeney, C. Pound, T. H. Ham, J. Harris  
Treasurer. Captain. Hon. Secretary.

F. Durall, J. J. Correll, W. Smith.

Sitting in Front.—W. J. Fuss, J. Waldie, A. E. Turbill.

range, the invention of one of their members, G. Smith. Slight improvements have been made by other members, and it is now admitted by all to be equal if not superior to any in the States.

The Club have received many visiting teams from South Australia (viz., C. Battery, A. Battery, Port Pirie, Adelaide Cyclist, Border Town, &c.), but in each case have proved themselves successful. They have also fired matches on several occasions with the Broken Hill Rifle Club, the honors being about equally divided.

Through the generosity of the citizens, some valuable trophies have been given—silver cups have been given by L. Guttochna, J. W. Harris, and the Club itself, and won respectively by C. Pound, J. J. James, and Captain Ham.

Some of the members regularly attend the National Rifle Association Matches, and are generally fortunate in securing some of the prizes, J. J. James making the possible at 600 yards one year in Sydney. The Club also affiliates with the National Rifle Association each year, and shoot for the N.R.A. Medal.

Three championships have been shot for in Broken Hill, and it has fallen to the lot of this Club to secure two—in 1905 by C. Pound, and in 1907 by J. J. Correll. A permanent marker is engaged every Saturday. The Club has a membership of 45, mostly young men between the ages of 18 and 30. Any information will be given either by the Captain or Secretary, and visitors are cordially welcomed to the range.

## ***The Champion of the Barrier Rifle Shots.***

Mr. J. J. Correll, a mason by trade, and at present engaged as foreman, is perhaps one of the best known men in Broken Hill, where he has resided for the last 21 years

He has been a member of the Broken Hill Rifle Club since its inception, and gained much distinction, as can be seen by the medals

## ***West Broken Hill Rifle Club.***

The above Club was formed in June, 1900, at the instance of Messrs. George Smith, F. W. Shepherd, J. Waldie, C. H. West and G. Hill.

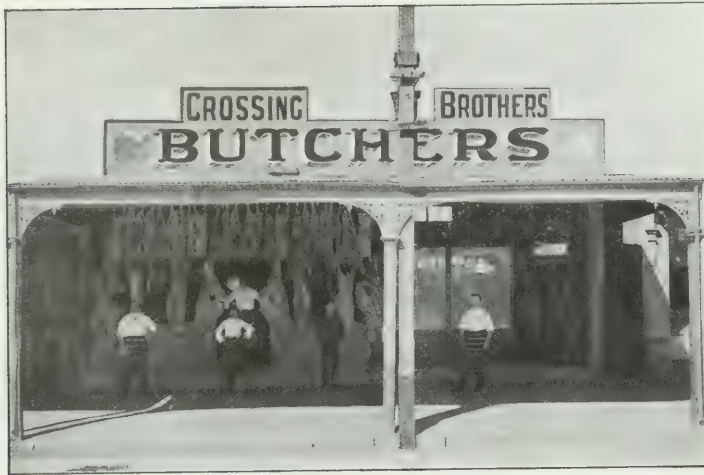
For the first three years Mr. Geo. Smith acted as Secretary for the Club, and it is mainly to his energy that the Club has been so successful; in fact, all the above-mentioned have been made Hon. Life Members for the valuable services rendered to the Club.

F. W. Shepherd filled the position of Captain for a number of years, and was succeeded by T. Ham, who still retains the position.

The Club have a "Disappearing Canvas Target" on the



J. J. Correll.



Our Argent Street Shop.

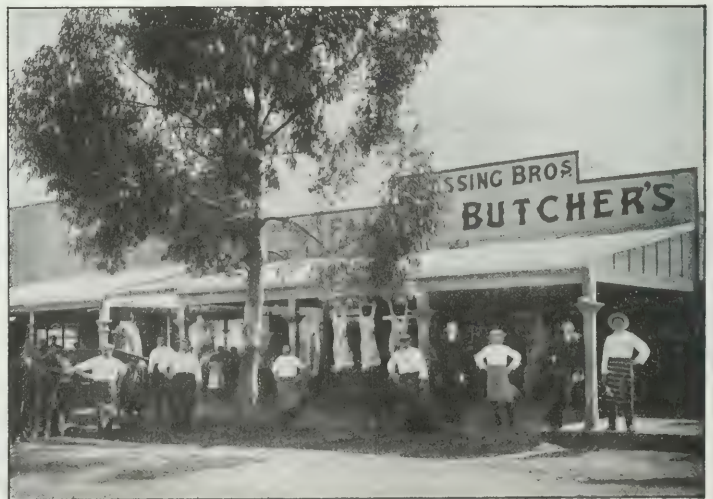
One of the  
Oldest-Established  
**BUTCHERS**  
and  
**STOCK DEALERS**  
in  
Broken Hill.

# Crossing Bros.

NOTE.

*No Good Meat so  
Cheap.*

*No Cheap Meat so  
Good.*



Our Patton Street Shop.



he wears—three being for the Annual Champion Club aggregate, two National Rifle Association medals, one as Captain of a teams match, six quarterly championships, and one for the Championship of the Barrier, won at the Easter meeting. Mr. Correll was also a successful competitor in the South Australian Rifle Association matches, held in March, 1907, winning the second stage of the "King's" with a meritorious score.

In his spare time he has studied and taught Sandow's system of physical culture (and to this he attributes many of his successes), two years in succession winning the 16 lb. hammer-throwing competition in a single throw.

Mr. Correll is, perhaps, more widely known as a teacher of dancing, having had some 5,000 pupils pass through his hands, principally children, whom he has taught "free of charge," for the purpose of raising funds for charities by means of entertainments. By the proceeds of these entertainments some hundreds of pounds have been distributed to the following various charities: The Hospital, Benevolent Society, Ambulance Association, District Nursing Association, and Brighton Institution for Blind, Deaf and Dumb Children of South Australia. On July 10, 1907, he gave a children's ball, which proved so successful that the amount of £32 was handed over to the Cottage Homes Fund, being the second instalment for that worthy object.

The first preliminary meetings which resulted in the formation of the Barrier Boys' Brigade, were called and presided over by Mr. Correll, and he was one of the first Board of Management.

One of the 15 medals he wears, and of which he is justly proud, was presented to him on his resigning the position of Superintendent of a Children's Sunbeam Society, which at one time supported a cot in the Broken Hill Hospital.

## *The Broken Hill City Band.*

The formation of this Band took place in 1900, the main objects being: 1st. To raise the standard of music in Broken Hill; 2nd. To provide recreation for young men and lads who wasted their time in walking about the streets and having no aim in life. Under the leadership of Mr. J. J. Bermingham, the success of the Band was assured from its infancy, for he is a man who has devoted time, pains, and any amount of hard work to bring the Band to its present stage of popularity.

Since the Band's formation they have attended six contests, gaining three firsts, one third, and twice unplaced, being a fair record when one considers the disadvantages of a mining town.

The Band hold the "Southcombe Challenge Cup," for gaining the three competitions held in Broken Hill, under auspices of the A.N.A.

The Band are naturally proud in having a set of instruments valued at £400, besides a set of triple-plated saxophones, made to the Band's order by Besson & Co., of London, and which cost £120, and also a complete uniform outfit, as our photograph shows. Some of the Band's members have been successful also in solo competitions at Ballarat, and pride themselves that they have amongst their members at the present time Australia's champion trombone trio, viz Messrs. G., A., and A. E. Bermingham.

The Band intend shortly to build a band-room of their own. The executive of the Band for the present term is as follows: **Patron**, W. J. Loring, Esq.; **President**, A. J. Hall, Esq.; **Trustees**: L. H. M. Avery,



The present "City" Band.

Esq., A. J. Hall, Esq.; **Solicitor**, J. P. Edwards Esq.; **Conductor**, J. J. Bermingham (who has acted in this capacity from its inception); **Hon. Secretary and Treasurer**, Harry Hall; **Committee**: Messrs. W. Findlay, R. Walsh and H. Harman.

## *The Amalgamated Miners' Association Brass Band.*

The above Band, more familiarly and popularly known as the "A.M.A." Band, was founded in 1896, with the object "to assist in providing pecuniary assistance to distressed members, to promote the interest of the Barrier Branch of the Amalgamated Miners' Association of Broken Hill in general, and for such object funds shall be raised by any entertainments or methods devised by the Managing Committee."

The Committee is constituted thus: Four members from the A.M.A. and President ex officio; three playing members and Bandmaster. To be a member of the Band, it is necessary to be a financial member of any local recognised Trades' Union. The present officers are:—**President**, T. H. Ripper; **Treasurer**, J. J. Smith; **Secretary**, J. C. Byrne; **Trustees**: P. Earle and J. Chennell.

The A.M.A. Band has made two tours through New South Wales, and won golden opinions on all sides, for their playing abilities.



J. C. Byrne  
(the Bands' Secretary).

The Band has collected hundreds of pounds from time to time for charitable purposes, by getting up concerts, socials, entertainments, etc.

For the last two years, every Saturday night, from 7.0 to 9.0 p.m., they entertain hundreds of people in Argent Street, outside Boan Bros.' establishment, with music of a high standing merit.

The Bandmaster is Mr. Ed. Sommerton, and the Secretary Mr. J. C. Byrne, who has proved himself an able and good worker.



The "A.M.A." Band, 1907.

## *The Broken Hill Band.*

The above Band was founded in the year 1888 by Bandmaster Bartley, who conducted the organisation for a period of 13 years, during which time it is better known as "Bartley's Barrier Band." At the onset about half-a-dozen met for practice, and these possessed no musical knowledge whatever, but, before many months had expired, through close application to study, the Band made its first debut before the Argent Street public, and was well received, and its future success assured.

The Band became popular, not only for rendering good music, but for the services given gratuitously for the benefit of charity. A sum of over £3,000 was raised for charities by its efforts during Bandmaster Bartley's leadership (13 years), and in the same period upwards of 300 players had been members.





The Broken Hill Band, 1907.

During 1901, when a great depression assailed the mining industry of Broken Hill, Bandmaster Bartley resigned his position, taking his departure for the gold-fields of Western Australia; but, before leaving, he installed Mr. Paul Pfitzner as his successor—the capable solo cornetist who still has charge—doing good work—maintaining the high reputation of the Band—retaining its public popularity—and developing its music to the highest standard of merit.

The Band up to the present has expended over £250 in instruments, be-

sides several members having obtained their own privately. In contesting work the Band has done well, tying with the City Band in 1904 at the A.N.A. contest, but being beaten in the final. The Adelaide contest was attended at Easter, 1905, and the Band's performances were highly spoken of. Later in the same year, the A.N.A. contest in Broken Hill proved most exciting, the Band only being one point behind the "City," who won.

The Band at the present numbers 40 members, but, being a mining centre, and thus a moving population, its number varies to the detriment of the Band. Mr. E. W. Barwick is the able Secretary, and has held that position for many years.

## *The Barrier Ranges Athletic League.*

The inclusion of a £50 Sheffield Handicap in the programme of sports submitted by the Druids' Gala infused such interest in pedestrianism that the Gala Committee were approached, with a view to the formation of an Athletic League.

Invitations were sent to the various sporting bodies, and an inaugural meeting was held on December 21, 1897, presided over by the new President of the League (T. McMahon). Delegates from the Caledonians, Butchers, McCulloch Park, Silverton Tram Employees, Hillside, Druids, and Allendale sports committees were present. The meeting deputed Jack McDonald and Jack Kennedy to draw up a code of rules, and on Jan-



Back Row.—					
C. J. Thomas,	W. Merritt,	G. Allen,	J. Harris,	J. Hughes.	
Del. May Day.	Del. Eight Hours.	Del. Allendale.	Starter.	Del. Eight Hours.	
Sitting.—F. C. Elvidge,			A. Ross,	T. McMahon,	G. Owens,
Treasurer.			Secretary.	President.	A. G. Edwards.
					Del. Butchers.
Sitting on Ground.—D. W. Fleming.				W. H. McPherson.	
				Del. St. Patrick's.	
				Del. Caledonians.	



*A REALLY FINE CANDLE !*

Argent St., showing Technical College, Town Hall, G.P.O., &amp;c.

# Burford's Exhibition Candle

*Free from the objectionable smoke and  
smell of mineral and paraffine wax,*

GOLD MEDAL. ANTWERP.

*Doctors Recommend the use of*

# Burford's Prize No. 1 Soap

*It has the Fragrant Smell of a Pure Refined Soap.*

# Burford's No. 1 Starch

*Equal to any Made  
in the World.*



Argent Street, showing Court House and Grounds.

uary 6, 1898, they submitted their report, and the League founded, Mr. J. Souter being installed President, Mr. Bert Sayers Treasurer, and A. Ross Secretary.

During the existence of the League every effort has been made to purify the sport. The League is affiliated with all the Athletic Leagues of the Commonwealth.

There are at present 120 registered pedestrians on the register and seven registered clubs.

## Barrier Ranges Football Association.



(Established April 14, 1890.)

The clubs competing for premiership honors were South Australians, Victorians, Broken Hill, and, later on, South Broken Hill, considerable interest being infused in the meeting of the three former clubs. South Australia, however, eventually secured a monopoly of the premierships, which decreased the interest in the game. The season 1900 opened under the electorate system, and the competing clubs were Norths, Souths, Wests and Centrals, who have played continuously (with exception of season 1901, when Central Club withdrew). At first the new system did not meet with the approval of the public, but the Association persevered, and are now rewarded for their efforts, the game being firmly established in Broken Hill, inasmuch that interstate matches with South Australia are played annually.

Back Row.—

W. H. Macpherson, J. M. R. Ford, Bert Sayers, T. F. Murphy, F. D. Inman.  
Del. "Norths," Del. "Souths," Del. "Norths," Del. "Souths," Del. "Centrals"

Sitting.—A. Ross, J. C. Dobbyn, O. Von Rieben, M. Doyle, S. E. Wellington.  
Secretary. President. Patron. Vice-Pres. Treasurer.

Sitting on Ground.—M. J. Odgers, F. C. Elvidge.  
Del. "Wests." Del. "Wests."

The Association are now in possession of their own playing ground (Jubilee Oval), and improvements on a large scale are now in progress. The office-bearers are: **Patron**, O. Von Rieben, Esq.; **President**, J. C. Dobbyn, Esq.; **Vice-President**, M. Doyle, Esq.; **Appeal Committee**: Messrs. M. Doyle, D. Farquhar, C. Emery, and Rev. A. W. Wellington. The following tables, showing the records of the various clubs from 1900 to 1907 inclusive, should prove of interest:—

### PREMIERSHIP.

Year.	Premiers.	Runners-up.
1900	West	North
1901	West	North
1902	North	West
1903	West	North
1904	North	West
1905	North	West
1906	South	North
1907	North	South

"NORTHS."										
For.					Against.					
Club	Played	Won	Lost	Drawn	Goals	B'k'ds	Points	Goals	B'k'ds	Points
Wests	45	31	14	—	200	321	1521	166	224	1220
Souths	42	32	10	—	220	344	1624	167	263	1265
Centrals	36	28	7	1	214	316	1600	113	214	892
	123	91	31	1	634	981	4745	446	701	3377
"WESTS."										
Souths	45	33	12	—	176	300	1356	125	230	980
Centrals	35	22	12	1	161	285	1251	116	199	895
Norths	45	14	31	—	166	224	1220	200	321	1521
	125	69	55	1	503	809	3827	441	750	3396
"SOUTHS."										
Norths	42	10	32	—	167	265	1265	220	344	1624
Wests	45	12	33	—	125	230	980	176	300	1356
Centrals	33	18	14	1	169	255	1269	120	239	959
	120	40	79	1	461	750	3514	516	883	3939
"CENTRALS."										
Norths	36	7	28	1	113	214	892	214	316	1600
Wests	35	12	22	1	116	199	893	161	285	1251
Souths	33	14	18	1	120	239	959	169	255	1269
	104	33	68	3	349	652	2744	544	856	4120



North Football Club.

## North Football Club

became a senior football club in 1899. In 1900 electoral football was introduced, and since then the Club has been successful in gaining premiership honors four times, and were also runners-up four seasons. The present season has undoubtedly been the most successful and prosperous one in the annals of the Club's history, both from a playing point of view and financially, for they gained the premiership without suffering defeat for the season, thus making them premiers and champions, and establishing a record in Broken Hill football.

The following are the records for the Club, and records for Broken Hill:—

- (a) Largest number of goals kicked in any one match against any one club—20 goals 22 behinds. **Established this season.**
- (b) Highest aggregate number of points kicked for season by any one club. **Established this season.**
- (c) Winning premiership without suffering defeat for season. **Established this season.**
- (d) Premiers more times than any other Club in Association.

For other information see figures on preceding page.

Officers of the Club are:—**Patron**, T. H. Palmer; **President**, Bert Sayers; **Chairman**, W. H. Macpherson; **Captain**, F. A. Meadows; **Vice-Captain**, H. J. Paternoster; **Secretary**, M. E. Johns.

## South Football Club

is one of the pioneer Clubs of the Barrier, having been formed some 18 years ago, although going under the name of the "Alma Club" till 1906, when they changed it to their present title.

The Club always had a fair team, and played well, but were unsuccessful in obtaining premiership till 1906, when, assisted with the services of some good players, with Fredk. O'Brien at their head as Captain, they struggled and fought hard, and by him were piloted to the coveted position of premiership for that year.

The victory from the "Norths" was a popular one, and proved one of the best games seen on the Barrier.

This year was not so successful, the Norths taking the premiership, and the Souths being the runners-up. This year the Club undertook a trip through to Melbourne and two of the Western Districts of Victoria.

The officers of the Club are as follows: **Patron**, W. E. Wainwright, Esq.; **President**, W. Gray, Esq.; **Secretary**, Thos. F. Murphy; **Chairman**, E. Lewis; **Captain**, S. Geddes; **Vice-Captain**, F. O'Brien.



South Football Club.



## *Central Football Club.*

Our photograph represents a few members of the "Centrals"—a strong team, with some good players, although up to the present they have been unsuccessful in winning the premiership. The officers are as follows:—Patron, A. Von Rieben; President, H. Goss; Secretary, H. R. Bentley; Treasurer, D. Hooper; Auditors: Messrs. Wellington and Webber; Delegates: Messrs. Inman and Wellington; Proxy Delegates: Messrs. Wilson and Bentley.



The "Centrals."



C. C. Colebatch  
(Chairman of Association).

## *Broken Hill Lacrosse Association.*

Lacrosse on the Barrier has had a somewhat lethargical existence. Soon after Broken Hill was established, a few enthusiastic lacrosseurs met and formed an association, which unfortunately had a short life, and the game was played on and off until 1903, when it was once more started, and received such substantial support that the pastime has been indulged in every season since. Mr. Henry Valentine held the position of Secretary for the 1903-4-5 seasons, Mr. F. Hetherington for 1906, and at the beginning of 1907 Mr. H. L. Batten was appointed.

Lacrosse is a splendid exercising game, inasmuch that every muscle of the body is equally benefited. As far as physical development is concerned, no better example

can be offered than the French-Canadian Tommy Burns (Norah Brusso), the world's champion pugilist, who ascribes his success absolutely to lacrosse.

A team of 16 players left Broken Hill on Wednesday, August 14, 1907, under the management of Mr. J. N. Jonas, for Adelaide, where a series of three matches were played. The first was against the University "A's" at Norwood on the day of arrival, and, owing to the effects of the tiring journey down, and to the fact that a majority of the



The Team that went to Adelaide in August, 1907.

# A Progressive Firm.

**T**HE Commercial Changes in Broken Hill have been many, and a very interesting article could be written upon the various successive proprietors of shops in Argent Street.

In the Drapery Trade particularly, recollections of changes, both in the occupiers of different establishments, and the trend of trade would play an important part in the History of Commerce here.

Broken Hill is a great place for its favorite shops, and these are generally decided upon by the civility and attention of assistants, the full stock and good assortment of reliable goods, and selling cheap.

One shop after another has been the public's favorite; and it is not difficult for the careful observer to note how growingly popular the RELIABLE Firm,

## W. R. NAIRN & CO.,

is becoming.

Messrs. Nairn & Co. have been trading here nearly seven years. Mr. W. R. Nairn purchased the old-standing and well-connected business of Proctor and Cooper, Argent Street, in March, 1901.

Messrs. Proctor & Cooper, in their day, were known as the GOOD QUALITY DRAPERS OF THE CITY. Messrs. NAIRN & CO., whilst retaining that good name, have also become known as the CHEAP Drapers of Broken Hill, WHERE YOU GET WELL SERVED.

The shop is the oldest Drapery concern here. It was first conducted by a Mr. Kibby, then successively by Proctor and Cooper, Nichols & Hurley, E. Lucas and Co., and W. R. Nairn & Co.

Twice the building has been enlarged, but even the 5,600 feet of floor space that Messrs. Nairn & Co. have available is quite insufficient to cope with the rapid growth of their trade.

Judging by the way the business has increased, it is safe to say, that this popular shop is now a very great favorite with the Public of Broken Hill, and the surrounding stations and district.

No successful Business is ever built up without a PROPER PLAN OF ACTION and A SET SYSTEM.

A determined battle, and a desire on the part of MR. NAIRN to give his customers "AS MUCH AS POSSIBLE FOR THEIR MONEY," have been instrumental in the building up of this Business House.

"GOOD BUYING,"

"CLOSE SELLING,"

"POLITE ATTENTION,"

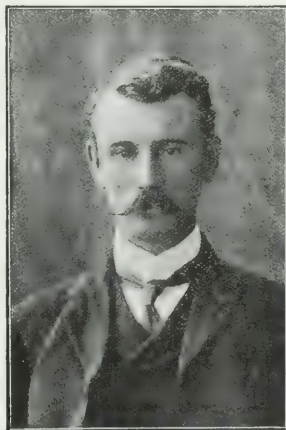
and

"ENERGETIC ADVERTISING"

is the Short Story of W. R. NAIRN and CO.'s success.

The large Buying Experience of the proprietor in the best markets of the world, coupled with a careful study and extensive knowledge of Dame Fashion in all her ever-changing and varying moods, added to the big purchasing power of the Firm—owing to their turnover—gives the first point of advantage to their customers.

Being Importers direct—with consequent Middlemen's profits saved—is another advantage passed on to their customers.



MR. W. R. NAIRN.

TO-DAY Messrs. Nairn & Co.'s Stock is amongst the largest and best assorted in the Hill. Every article, and every idea of doing business IS UP-TO-DATE.

The attractive Display in every Department is only equalled by the exceptionally low prices.

DEPTS. Comprise:

Millinery,	Costumes
Mantles,	Blouses
Underclothing	Corsets
Dresses,	Prints
Silks,	Manchester
Carpets,	Linoleums
Haberdashery,	Hosiery
Laces,	Gloves
Ribbons	Blankets
Mercery,	Shirts
Men's Clothing,	Boys' Clothing

PRACTICAL ECONOMY—DEPENDABILITY FIRST ALWAYS, THEN THE "LOWEST POSSIBLE PRICE" CONSISTENT WITH THE QUALITY, are

the "all-important" points—points carefully studied in EVERY department at NAIRN'S. These two features, thoroughly impressed on the Shopping Public, have brought an enormous business to this LOW-PRICE SHOP, each day adding many permanent customers.

Each Department has at its head an expert—the best that can be had—Men and Women of proved experience, assistants who know their business. Customers are thus sure of being Well Served. This, added to the small prices asked for their goods, makes another reason for the growing popularity of W. R. Nairn and Co.'s Business.

Indeed, it is a common remark throughout the city that "You get better served at Nairn's." The person who is spending 6d. is treated with the same courtesy as the one buying £6 worth. Nairn and Co. recognise that "an ounce of satisfaction is worth a ton of talk," and satisfaction goes with every article they sell.

"Reliability" first, last and always.

THIS IS THEIR CREED:

*"We believe in Reliable Goods of Known Value; also in Selling Goods, not Keeping Them. ...In Cheerfully Exchanging or Refunding the Purchase Price when not Satisfactory. We Believe in Advertising and in Living Up to our Printed Statements (see the 'Miner' every day). In Giving Satisfaction to our Customers, Knowing that they are not only the Best, but the Truest Advertising Mediums."*

A Creed which is faithfully carried out by this enterprising Firm. There's pleasure in shopping at Nairn's. There's a "ring-true" about the place, it's so full of life, bustle and go. The counters are kept busy all the day long. There's a glad-to-see-you air about the shop—makes you feel at home.

Ladies who are keen judges of value, say they can always buy to better advantage at NAIRN'S. For instance, what they mean is this: Suppose they want a pair of Cashmere Hose at 1/6, they are certain of getting a better quality stocking for that price at Nairn's than elsewhere, and so with all other lines.

The Firm advertises extensively and energetically. Folk would almost think there was something wrong with "The Miner" if the attractive advertisements of Nairn & Co. were missing. NAIRN'S believe in Novelties, and in getting away from the usual hum-drum advertising.

Everyone reads Nairn's advts., because, besides being attractively written, there is never any misrepresentation. The goods at the shop are just as advertised—"Words backed up by Deeds." This creates confidence, and all NAIRN and CO.'S advertisements bring business, because the public knows them to be true. All goods are marked in plain figures. HONESTY is the foundation stone of their Business. W. R. NAIRN & CO. IS A FIRM YOU'LL LIKE TO TRADE WITH.



players had not played on turf before, they were defeated by 14 goals to 2. On Saturday afternoon, August 17, on the Adelaide Oval (prior to the third Test Match, Canada v. Australia), the team showed very fine form against a combined junior association team, 7 goals each being thrown.

The final match was played on the Unley Oval against the Deaf Mutes (premiers of the Junior Association), on Monday, August 19. This resulted in a win by 6 goals to 4.

## *Barrier Centre, N.S.W. League of Wheelmen.*



The League was formed in 1895, and is affiliated with the League of N.S.W. Wheelmen, John Penrose being President, and W. Blows Secretary.

The first few years there were about 30 to 40 members, during which time many Sunday club runs were held, and several sport meetings promoted each year, which were mostly held on the Recreation Ground.

In 1897 the League was very strong, and some prominent inter-State riders visited the Hill, and on Boxing Day, 1898, a big meeting was held.

From 1903 to the present time the average has been from 80 to 100 members, including about 40 racing members.

The League now holds two meetings annually, in conjunction with the Athletic League, besides controlling the cycle racing at all sports gatherings promoted by other bodies.

Standing—				
A. Elliott	R. Dennis	F. Dennis	D. W. Flemming	R. H. Fox
Handicapper.	Steward.	Judge.	Master of Track.	Steward
Sitting—				
F. W. May	E. H. Grimm	T. S. Thomas	J. Hughes	H. Valentine
Auditor.	Referee.	President.	Vice-President.	Secretary.

## *Broken Hill Tennis Club.*

The Club possesses two well-laid asphalt courts, enclosed by a 12-ft. iron fence, and is in a flourishing condition, having about 40 members. **Patron**, G. D. Delprat; **President**, V. F. Stanley Low; **Vice-President**, E. J. Horwood; **Hon. Treasurer**, J. A. McPhie; **Captain**, J. A. McPhie; **Deputy Captain**, R. M. Nairn.

## *The Barrier Ranges Cricket Association*

controls the game of cricket on the Barrier. It has been in existence for nearly 20 years, but has had rather a chequered career. When the game was played on what is now the Central Reserve it flourished, good crowds turning up to watch interesting games, but when the reserve was closed to all sporting clubs, and the Western Oval was opened up, the Association had to remove its wickets (slate and matting) to the Oval. Public patronage fell away considerably in consequence (the Oval being right away from the centre of the town), and it is now very small indeed, the Association having a hard struggle



Broken Hill in 1894.



to keep its head above water. Its players compare well with those more favourably situated, and, when opposed by teams from South Australia, always give a good account of themselves. E. Jones (of Australian Eleven fame) came from the B.R.C.A. ranks. Several other players, when given opportunities in city teams, have done splendidly. Two English Elevens have visited Broken Hill, the local players putting up good games (with odds in their favour).

The Association now comprises the following clubs: Willyama (premiers of seasons 1905-6 and 1906-7), Proprietary, South Mine, Austral, and Public Service.

Office-bearers:—Patron, Mr. O. Von Rieben; President, Mr. T. Geo. Sweet; Chairman, Mr. J. C. Dobbyn; Hon. Sec., Mr. S. E. Wellington; Hon. Treasurer, Mr. W. H. Forsyth.



Group of Committeemen.

## *Silverton Tramway Employees Picnic Sports.*

In the year 1891 a day was allotted the employees solely for their own recreation and pleasure, and free from their duties as far as practicable.

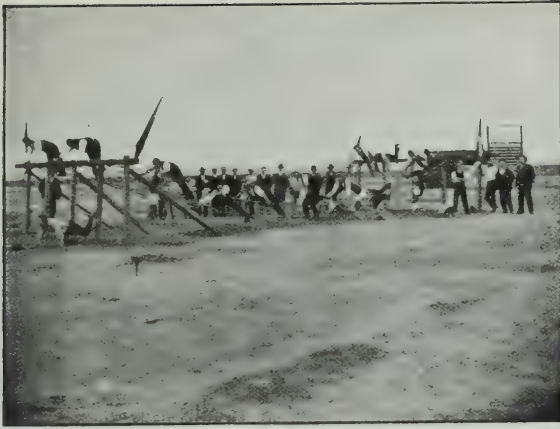
The celebration of the event took the form of several trains to Stephens' Creek, containing the employees and their friends to spend the day together. The day was one of much pleasure. A small sports programme was provided, and everything possible done to provide a pleasant outing.

It was made an annual event, taking place on Easter Monday, and has year by year advanced, and is now acknowledged as the best and most up-to-date outing of the year by the community.

The employees, in making this a most popular day, have the advantage of good committeemen, owing to their knowledge and experience of years standing, and receive every encouragement from their officers, and particularly Mr. Chas. Eley, their Patron (and General Manager of the Company), to work and make it a success.



Obstacle Race (upright).



Obstacle Race (flat).

£150 is distributed in prizes for pedestrian, cycling and novelty events.

The obstacle race is well worthy of the reputation it holds of being the best in the Commonwealth; very amusing to spectators, but trying and hard on competitors, they having to climb different rope ladders, scale pig-nets, get through swinging bags, and crawl through bags of different coloured powders. This event rightly carries big prize money.

Another amusing obstacle is the kangaroo race, the competitors being provided with special outfits resembling kangaroos, with hands and legs secured, and have to hop or jump over an agreed distance.

The undertaking is always a social and financial success, and annually, after each sports meeting, substantial donations are made to the charitable institutions of the Barrier.



"Kangaroo" Race.



323  
and  
325  
Argent  
St.



323  
and  
325  
Argent  
St.

Usual Saturday Night at Our Store.

## R. E. A. KITCHEN, Grocer & Provision Merchant.

*The Place where you get a FREE INSURANCE POLICY.*

*'Phone 237.*

*£844 paid away in Two Years under a FREE INSURANCE SYSTEM.*



Group of Employees.





The Trades' Hall.

The New South Wales Government dedicated the land under the Trades' Hall Act in 1897, vesting it in the Australian Labor Federation, and Societies affiliated with them.

The Hall, which ranks amongst the finest buildings on the Hill, has been built by the efforts of the workers, the Eight Hours Committee, and a special ladies' committee, who, by the means of fairs and entertainments, &c., augmented the funds some £400 to £500.

The first building committee, starting operations with a credit of £600, built the first section, but finished with £1,700 in debt. This, however, was paid off within 18 months. The foundation stone was laid on June 5, 1898, by Ben Tillett, and the second section was completed during the years 1904-5, and the present liabilities of about £3,000 are owing to the various Societies meeting in the Building.

The Board of Trustees are elected annually by the various Societies affiliated with the A.L.F. Society, the building at the present time being owned by the trades unionists of Broken Hill, and is the only Trades Hall south of the Equator absolutely owned by the workers.



Standing—A. McEwan  
Operative Mason's,

E. J. Thomas,  
Butcher's Employees  
(Treasurer).

W. J. Dunstan,  
A.W. Union

G. Mathews,  
A.L.F.

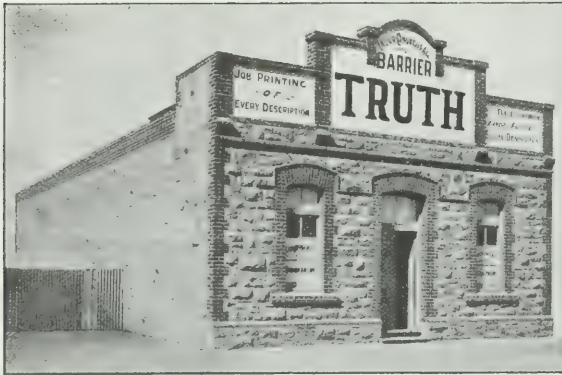
Sitting—J. J. Smith  
A.M.A.  
(Vice-President)

W. C. Hayball  
A.S.E.D. & F.  
(President)

J. Raven  
Caretaker  
(Secretary)

R. A. McCann  
Carpenters and  
Joiners,

## Australian Labor Federation.



Barrier "Truth" Office.

"Truth," which was just issued as a sheet of funniosities and advertisements. The capital of the venture was the modest sum of 12s.

A few months later, on September 10, 1898, the paper appeared enlarged to eight pages folio, and was owned by the Barrier District Assembly P.L.L., and edited by Mr. Geo. Black. On January 9, 1899, Mr. C. Maley became editor, and retained the position up to 1902. The A.L.F. took charge towards the end of 1899, and issued the paper as a four-page demy, and also entered on the business of general printers.

Since that time the progress of the paper has been steady and consistent. Mr. J. W. Kilner occupied the managing editorship until January, 1903, when the position of editor and manager was divided, Mr. H. Mann being manager and Mr. R. W. Ross editor.

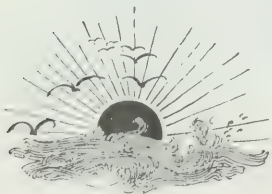
The paper was made permanent by the important decision of the A.M.A. to levy its members for the up-keep of the paper. An attempt has been made from time to time to issue the paper as a daily, and a considerable sum now lies to the credit of the fund raised chiefly by levies by the unions affiliated.

It has now been definitely decided to launch out as a daily early in 1908, orders for the necessary machinery having been placed with English makers. Mr. F. Launder was editor from March, 1906, to May, 1907. At the present time Mr. J. C. Harper is manager and Mr. W. A. Jones editor.

Our photo shows the offices of the A.L.F.



Standing—T. G. Cox, H. J. Dyer, W. Nulty, D. Tweedie G. Matthews.  
Treasurer Trustee Committee Committee Trustee  
Sitting—W. A. Jones, R. W. Tweedie, C. Brosman, W. F. Rowe, J. C. Harper  
Editor Vice-Pres. President Secretary Manager





**8 Hours' Work.**

**8 Hours' Play.**

**8 Hours' Rest.**



Eight Hour Day Procession, 1907.



**8**



## 8 Hours' Day.

This was originally the Anniversary of the founding of the Barrier Branch of the A.M.A., under the Victorian constitution of that body, of which it was at first a part. The rules provided for the holding of one day in the year as a special holiday, and in the old rule books of the branch it was laid down for the first Thursday in October. It was stated in some of the old records that the holiday in 1889 was the fourth anniversary of the Barrier Branch, and was held at the Proprietary Dam Paddock, at which two Societies marched, viz., the A.M.A., with about 1,200, and the Engine Drivers and Firemen, with 100 members, while over 4,000 people were present at the gathering.

It was held on the same ground in 1890, but was far more imposing, the procession being over a mile in length, fully 4,000 marching, including the A.M.A. underground branch—Surface Smelter Hands Branch—A.M.A. Engine Drivers and Firemen—Masons and Bricklayers—Carpenters and Joiners—Typographical Society, and the Albert Teamsters. In 1891, owing to the success of the previous demonstrations, other Societies were invited to take part, when fully 20 Societies were represented.



The year 1892 was the parent of the Eight Hours' Day, originally known as the "Miners' Day," and, as other Unions had joined, it was decided to make it the "Barrier Eight Hours' Day." In 1893 the day was spent on the new ground of the B.H. Athletic Association, and, as year succeeded year, the importance of the occasion was markedly plain by the ever-increasing numbers, the profits accruing therefrom being devoted principally towards liquidating the debt on the Trades' Hall.

In 1906 a new departure was made in establishing an Art Union in connection with the gathering, in order to still further increase the revenue and reduce the debt on the Hall. The greatest number of members of any single Organisation

Front Row Only.—

W. F. Rowe,	G. Squires,	W. Nulty,	M. L. Moran,	W. Williams.
	Trustee	Secretary	Treasurer	President
R. A. McCann,	A. McEwan,	H. Baring,	W. Bath.	
Vice-President	Trustee	Trustee	Trustee	





Exterior View of Premises.

# D. D. Murray & Co.,



## ARGENT STREET, BROKEN HILL. . . .

*Fashionable Tailors, Hatters,  
and Outfitters.*

**Hats and Mercery  
a Speciality.**



Interior View.



Eight Hour Day Procession, 1907.

took part in the procession this year, when there were fully 3,000 members of the A.M.A. The profits from the sports gathering and art union amounted to nearly £600, being the highest amount obtained.

Upwards of 7,000 people travelled by train—and horses and traps on Eight Hours' Day are always at a premium.



## *The Amalgamated Enginedrivers' and Firemen's Association, New South Wales* (BROKEN HILL BRANCH.)

The Barrier Range Engine-drivers' and Firemen's Association was first formed on April 10, 1889, when about a dozen men handed in their names as members.

The Association rapidly grew until the year 1892, when what is now a matter of history—the big Broken Hill strike—took place, and for some considerable time afterwards, chiefly on account of the low price of metals, and a consequent exodus of members to the West Australian gold fields and other mining centres, there was a considerable weakening in numbers.

As the mining industry in Broken Hill improved, the Association gradually became stronger, and about three years ago a branch was formed at Cobar. The Association recently altered its registered name to the present one, with the registered office at present at Broken Hill.

The District Executive consists of President, Vice-President, Treasurer, three Trustees, two Auditors, and Secretary. The membership of the Broken Hill branch is now 472, and that of Cobar about 100, each branch paying to the general fund 7s. 6d. per financial member per half-year.

The Association pays to any member meeting with an accident while following his usual occupation the sum of £1 per week; in the case of fatal accident the relatives receive £25; and if any member die from natural causes the funeral expenses are paid to the extent of £10, the latter amount being raised by levy, but the former are paid by the District Executive out of the general funds.

The idea of forming the District is to place any new branch that may be



Standing.—A. Peady, Trustee	H. J. Dyer, Auditor	C. Brosnan, Auditor	C. Jennings, Trustee
Sitting.—D. Warnock, Vice-President	H. Ivey, Gen. Sec.	W. F. Rowe, President	C. Galwey, Treasurer

formed on a sound footing from its inception, and the formation of a district would undoubtedly materially strengthen the organisation.

The members of both branches are at present working under an agreement registered for two years. The District Executive will retire from office at the end of year 1907, the rule providing for an annual election by ballot of the whole of its members.



## *N.S.W. Loco. Engine Drivers, Firemen and Cleaners' Association.*

Industrial Union of Employees.

Broken Hill Branch.



Standing.—G. Lewis, M. Coffey, H. G. Gibson, W. Sergeant, E. Naylor,  
H. Morgan, Junr., S. Berry, J. Morgan.

Sitting.—G. Merritt, E. Stokes, T. Berrill, J. G. Merritt, G. F. Stoneman,  
Past Pres. Vice-Pres. President Secretary

H. C. Merritt, T. W. Harding.  
Treasurer Auditor

This Association was first formed by the Silverton Tramway loco. engine-drivers, firemen and cleaners, and continued until March, 1902, when it was decided to affiliate with the New South Wales Association, and on the 19th of that month Mr. Robert Hollis, M.P., General Secretary of the New South Wales Association, opened a branch with a membership of 32, with G. Merritt as President; H. F. Wyld, Secretary; and H. C. Merritt, Treasurer.

Success has favoured the branch ever since, the membership at the present being 53 out of a possible 55 eligible to join.

The Society is now federated throughout Australasia. The Association has always worked in harmony with its employers, and now receive the model conditions due to loco. men in Australasia.

Mr. Chas. Eley, General Manager of the Silverton Tramway Co., and Mr. W. H. J. Shelverton, officer in charge of the Government tramway, are both held in high esteem by the men, owing to the way they consider their interests, as well as the department.







Back Row.—W. H. Taylor, A. H. Renfry, D. Roffey, H. Blackwell.  
Middle Row.

C. Everett, P. B. Telfer, A. W. Edwards, B. James, H. Rabbich, H. Brown.  
Sitting.—R. A. Whitelock, E. J. Thomas, T. Price, G. Thomas, K. D. Clark.  
Treasurer Secretary President Vice-Pres.

## *A.F.B.E.U.* *Australasian* *Federated* *Butchers' Em-* *ployees' Union.*

### **BROKEN HILL BRANCH.**

The present Union first formed an Association about 13 years ago at the Wentworth Hotel, where they held fortnightly meetings, also holding a picnic annually.

In 1904 they registered under the Trades Union Act, but were an independent body up to March, 1907, when they joined the New South Wales Union as a branch, thus becoming affiliated with the Australian Unions.

Butchers' rules are the same all over Australia, and practically 90 per cent. of the butchers belong to the Union.

## *Operative Mason's, Bricklayer's & Plasterer's Society.*

The above Society was established on November 12, 1889, with the object of regulating the hours and price of labor, and to render mutual support to each other in cases of accident or death.

The first Chairman was Mr. James Crosbie, and first Secretary Mr. David Bathgate, the Society then numbering 178 members.

In June, 1900, the Society was re-established, and included plasterers—the Society being a purely Industrial Trades Union, and registered under the Trades' Union and Arbitration Acts.

In 1902 the number on the roll fell to seven members, but by the energy of the Secretary, Mr. Topperwein, it soon rose to 86 strong.

This Society was one of the nine Societies that formed the first Trades Hall Board of Trustees, and still hold a seat on that Board, their present delegate being Mr. A. McEwan.



Front Row Only.—F. Topperwein, M. Moran, W. Grosse, W. Guster,  
Past Secty. Treasurer Vice-Pres. President  
C. Bonner, C. Hutchinson, T. Castles.  
Secty. Asst. Secretary Tyler

The officers of the Society are shown in our photograph, the Trustees being W. Guster, A. McEwan and R. J. Burnett.



Heggarty's Hotel.

# Heggarty's



## South

## Broken Hill

## Hotel.

### This Hotel

Situated in Patton Street, South Broken Hill, is fitted up with all the latest improvements, and is replete with every comfort and convenience.

### HEGGARTY'S HALL.

Attached to the Hotel is a Spacious Hall, which can be engaged for all classes of Theatricals, Concerts, Socials, Dances, Lectures, &c., &c.

Apply

**Heggarty's Hotel,**

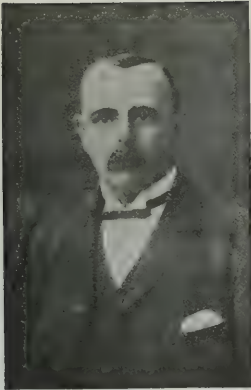
PATTON ST., SOUTH BROKEN HILL.



Interior of Concert Hall.

## *Broken Hill Protestant Hall Co., Ltd.*

---



**A. B. Wood** (Chairman).

Friendly Society, and that shareholders be confined to members of either Society.

The foundation stone was laid on June 20, 1903, by John Wheeler, Esq., J.P., R.W.G.M., L.O.I., N.S.W. The first Directors were G. A. Mills, J.P. (Chairman), A. B. Wood (Secretary), Messrs. E. Beskeen, E. K. Stuchbury, R. W. Dunstan, Thos. Dyer, J. H. Crougey. The formal

ing floor on the Barrier), two offices and ante-rooms, and billiard room downstairs, now occupied by the Orange Club, together with two fine Lodge rooms and ante-room upstairs.

A very fine upright grand piano, value 80 guineas, was presented to the Company by Andrew Stenhouse, Esq., J.P.

**Present Directors are:** A. B. Wood, P.D.W. (Chairman), elected May, 1905; Messrs. J. W. Probert, J. H. Crougey, Wm. Russell, C. W. Hulbert, J. H. Wicks, H. H. Bishop (Secretary, elected June, 1905).



**The Protestant Hall.**

opening for Lodge occupation took place on September 13, 1903; but it was not till 1907 that the buildings were finally completed, and on March 20 of that year they were opened with much ceremony by Major A. J. S. Gilchrist, the Grand Secretary, in the unavoidable absence of the Grand Master.

The buildings cost about £3,000, and contain main hall, 80 ft. x 42 ft. (the finest danc-



**H. H. Bishop** (Secretary).





*Protestant Alliance**Friendly Society**of Australasia.*

**Grand Council of N. S. Wales.**  
Established 1872.

The Society is strictly Australasian, having Lodges throughout the States in the Commonwealth and New Zealand. It was established upon a sound basis, its greatest essential being that all its members are Protestants, which adds strength and unanimity to its operations, and all true Protestants should join this Association, composed of men of similar conditions.

**Prince of Orange Lodge, No. 86.**

The first meeting in connection with this branch was held at the Carrington Shades, Argent St., on December 12, 1891. Twenty-five signatures were obtained. Bro. Jas. Hookings (first Worshipful Master elected) was in the chair, and application was made for the warrant of the Lodge.

Back row—Bros. R. W. Henry, C. F. Nelson, A. H. Edwards, S. Pollard, T. H. Angove, W. L. Hocking, Geo. Glasson, E. Daustan.  
Middle row—Bros. Thos. Eddy, R. W. Johnson, Sam. Orchard, Geo. Bredin, F. J. Williams, Ed. Tonkin, W. G. Crocker, W. E. Daustan.  
Sitting—Bros. J. H. f. Rose, W. J. Robinson, C. W. Perkins, R. Kendall, E. R. Silversmith, James Kendall, J. S. Edwards, J. H. Edwards.  
On Ground—L. T. Nicholls, W. Inglis.

The name Prince of Orange was given this branch by Bro. Jas. Hookings, January 7, 1892, officially opened January 28, 1892.

The Right Worshipful Grand Master, Bro. W. W. Gedge, and Bro. J. J. Crompton, Grand Secretary of Victoria, attended with authority from Bro. Wheeler, R.W.G.M. of New South Wales, who was unable to attend, owing to the Newcastle strike.

The present officers are as follows:—

**D.W.M.**—Bro. J. H. L. Rose.

**W.M.**—C. W. Perkins.

**Chaplain.**—J. H. Edwards.

**Junior Elder.**—A. H. Edwards.

**Secretary.**—E. R. Silversmith.

**Asst. Secretary.**—J. S. Edwards.

**P.M.**—W. J. Robinson.

**D.M.**—R. Kendall.

**Senior Elder.**—J. H. Phillips.

**Inner Guard.**—A. V. Perkins.

**Treasurer.**—Jas. Kendall.

**Trustees.**—Bros. A. Oliver, A. Francis, W. G. Lord.

**Entrance Fees.**

From 16 years to 30, 2/6  
,, 30 ,, ,, 40 5/-

**Contributions.**

16 and under 20, 1/2  
20 ,, ,, 25 1/3  
25 ,, ,, 30 1/4  
30 ,, ,, 33 1/5  
33 ,, ,, 36 1/6  
36 ,, ,, 38 1/7  
38 ,, ,, 40 1/8

**Benefits.**

After 6 months' membership, 10/6 weekly  
,, 12 ,, ,, 21/- ,,

**Funeral Allowances.**

£20 to £25.

**Wives,** £12 10s.

**Widows,** £10.

# International Order of Good Templars.



Back Row—J. S. J. Brownsea, W. Knight, H. Judd, C. Tuller, O. Easmussen, P. G. Gordon, W. Jones,  
Guard. Sentinel. Guard. L.E.D.  
Middle Row—  
Mrs. C. Tuller, Mrs. E. Bohn, Miss G. Zeugofage, Mrs. L. Pollard, Mrs. L. Brownsea, Miss B. M. Kennedy,  
Chaplin. D.M. V.T. Marshall.  
Sitting—E. Allanson, S. Marshall, T. C. Zeugofage, W. Hamilton, W. Barrow, S. Brownsea, F. T. Lewis,  
Treasurer. F.S. C.T. D.G.C.T. G.D. P.C.T. Secretary.  
W. Muir, Assistant Sec.

ney, and on May 29, 1907, the Lodge was instituted in the Protestant Hall, Broken Hill, by Bro. W. Barrow, of Pride of Redfern Lodge, No. 752.

The Star of Peace Lodge at present numbers 100 on its membership list, and has seen 14 sessions, which speaks volumes for the temperance cause in Broken Hill.

## SONS AND DAUGHTERS OF TEMPERANCE FRIENDLY BENEFIT SOCIETY.

### Rose of the Barrier Division, No. 156.

This branch was opened in the Protestant Hall in Broken Hill on August 30, 1907, by Bro. W. Hamilton, who was granted a special commission from the Grand Lodge. It has a list of 18 members, although only opened a few weeks, with a steady increase in the proposition forms. Mr. F. T. Lewis is the R.S., and resides in Wolfram Street.

Both Lodges extend a hearty welcome to visiting members of the Order.



Back Row—F. T. Lewis, J. S. J. Brownsea, E. Allanson, W. Knight,  
Secy. Ast. Conductor. O.S. Conductor.  
Middle Row—S. Marshland, O. Easmussen, C. Tuller, S. Brownsea, W. Muir,  
Registrar. Treasurer. I.S. F.W.P. F.S.  
Sitting—W. Hamilton, Mrs. F. Pollard, Mrs. L. Brownsea, Miss B. M. Kennedy, H. Judd,  
D. W. P. A.S. W.A. Chaplin. W.P.



**PALACE  
BUILDINGS.**

Telephone 321.

**Argent St., Broken Hill.**

Established 1896.

**EXCHANGE  
BUILDINGS.**

Telephone 417.

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The People's Popular Booksellers, Stationers,  
News Agents, Fancy Goods Dealers, &c.

P.O. Box 60.

*Orders by Post Promptly Attended to.*

# J. POLKINGHORNE & CO.,

PATTON STREET, SOUTH BROKEN HILL.

Timber,  
Iron,  
Guttering,  
Nails,



And all  
kinds of  
Ironmongery  
in Stock.

Carpenters, Builders, Undertakers and General Furnishers.



# Independent Order of Rechabites, S.U.

NEW SOUTH WALES DISTRICT.—No. 85.

Star of the Barrier Tent, No. 50, Broken Hill



S. Townsend, D.C.R.

Was inaugurated under the above title in connection with the New South Wales District in April of 1893. Previous to this the Order was represented in Broken Hill by the Silver Star (S.A. District), the Rose of the Barrier (Albert District), and the Star of Silverton (S.A. District). The fact that the funeral funds of these Tents being in another State rendered it necessary for the Tents here to sever their connection with the South Australian Districts, and affiliate with the New South Wales District.

The Tents mentioned decided to join as one Tent, and the choice of name resulted in the "Star of the Barrier" being chosen, as it was part of the title of the old Tents. Between 80 and 90 members formed the new Tent, which has steadily grown and progressed, over 800 members having been admitted since the Tent's inception, and, notwithstanding the fact that a large number of clearances have been granted to members to associate themselves with other Australian Districts, our membership now is about 350 adults and 200 juveniles. The Tent has paid for medical attendance for its members since its inception over £3,000, and disbursed £2,390 13s. 4d. in sick pay. A very gratifying feature is the very low mortality in the Tent's ranks, the deaths being very few.

The members of the Tent have never regretted their action in affiliating with the New South Wales District, a Society that stands in the forefront of sound financial up-to-date management in this State. The Government Actuary's valuation of the Order just out shows the Order to be worth 20s. 6d. in the £—in other words, for every £ of liabilities the Order has 20s. 6d. of assets.

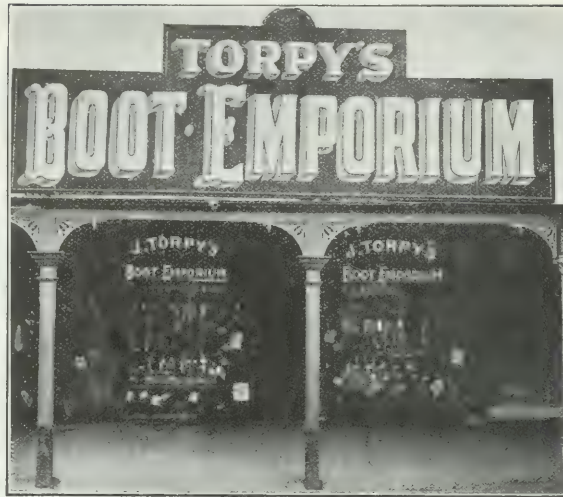
The group shown on this page represents some of the prominent workers of this Tent and the sister Tent, the "Willyama Lily." The writer regrets that Bros. W. Hawke, A.D.J.S.T., F. H. Griffiths, P.D.C., and E. Bennetts, P.C.R., and several other worthy brethren were unavoidably absent.

Mr. Samuel Townsend, whose portrait appears above, District Chief Ruler for New South Wales, is an old and well-known resident of Broken Hill. A Rechabite of 30 years' standing, and has been a member of the I.O.R. in Broken Hill for 18 years. He first attended the annual conference at Parramatta in 1894, and since that time has had a seat on the Executive for 11 years. He passed through the chairs of the Star of the Barrier Tent, No. 50, some years ago, and for a period of years was elected and re-elected to the position of Secretary, which post he was reluctantly compelled to resign, owing to business arrangements.



Back row—G. W. Falkner, Miss A. Pryor, Miss L. Snell, Miss A. Snell, Miss E. Naukivell, Miss L. Jones, E. J. Uren, Supt. Juveniles, P.C.R. P.C.R. P.C.R. P.C.R. P.C.R. P.C.R. P.C.R.  
Sitting—A. H. Tapley, W. G. Ruddock, A. Rosenberg, S. Townsend, C. Adams, J. Pryor, H. Pryor, W.B. P.C.R. P.D.L. D.G.R. P.D.L. (Sec.) P.G.E. Levite  
On ground—S. C. Bettison, W. W. Trezise, G. A. Smith, J. S. Edwards, D.B. C.R. Treasurer. Supt. Juveniles.

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him almost from the start.

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**The Paper Hanging, &c.,** is under the care of **Mr. H. Aulton**, who also has been with the firm for a period of 14 years.

**The Retail Department** is under the direction of **Mr. S. Massey**; while **Mr. J. S. Guidi** personally superintends the whole workings of the establishment.

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**The Carriage Painting, &c.,** is under the supervision of **Mr. A. W. Guidi**, brother of the Proprietor, who has been with



Bulk Store.



## *Independent Order of Rechabites, S.U.*



New South Wales District, No. 85.

Star of Alma Tent, No. 51.

The first meeting of the Star of Alma Tent, No. 66, was opened under the dispensation of the Albert District, S.A., No. 83, the first meeting being held on July 1, 1891, and the Tent continued working under this District until April 1, 1893, when the Tent was transferred to the New South Wales District, No. 85, under whose dispensation it has worked ever since, only under the number 51.

Some of the present members have been so since the inception of the

Tent, while others are scattered all over the Commonwealth. There is also a juvenile Tent in connection with the adult Tent, and when the boys attain the age of 16, they are drafted into the adult Tent, and at once become full benefit members, and should sickness unfortunately overtake them, they are entitled to the £1 per week for 52 weeks should the illness last that length of time. The benefits and principles of the I.O.R. are good, and the Rechabite Society is one of the soundest in the world.

## *The Barrier Temperance Alliance.*

The Barrier Temperance Alliance came into operation in August, 1906, and was affiliated with the New South Wales Alliance early in 1907.

Its first President was Mr. J. Copley, Mr. W. Inverarity being the first Secretary, and largely responsible for its formation. It was mainly through the activity of the Alliance that such success resulted from the taking of the Local Option Poll, when the Broken Hill people decided by a large majority for no license. Unfortunately a three-fifths majority was required by the Act to carry this measure, and, as the no-license votes did not reach that total, they were added to the reduction votes, the final result being a victory for reduction by 1,881 votes. Mr. C. S. Tomkins is the present Secretary. Nearly all the clergy are members of the Alliance, and take a deep interest in its welfare. Each quarter shows progression in power and numbers, and the members feel confident that a complete victory for the bottom square will eventuate at the next Local Option Poll.



Standing—T. Kitchen      Rev. C. E. Schafer      A. H. Gifford      S. Townsend  
Sitting—Rev. E. J. Tuck      C. S. Tomkins      J. Copley      S. Rosenberg      Thornton Pearson      L



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PERCY DAWES, Manager.

N.B.—All the "Studio" Photos appearing in this book were specially taken at the  
"Jenkinson" Studios.



Quartette Club.

### *Quartette Club.*

This Club was founded in 1895, with about a dozen members, the primary object being to advance, cultivate, and improve the musical talent of Broken Hill—and, besides the choirs, is the only local organisation of its kind. Much interest and enthusiasm is displayed by the members, who, up to date, have given 38 concerts. The actual number of members is 68, and about 180 subscribing members, the subscription being 10s. 6d. per annum. Mr. B. James is the Conductor, and Mr. A. Godden the Secretary.

### *The St. Peter's Church Choir*

numbering in all about 40 members, is the largest in Broken Hill, and holders of the A.N.A. Challenge Cup for chorus work and male voice singing. The ladies are gowned in surplices, collars and college caps, and join in the procession and recession at all services. This system was inaugurated ten years ago, and this church was probably the first in doing so in New South Wales. In 1906 the choir, by its own efforts in concerts, raised £70 for different objects of church work, and the music performed both in church and concert hall is always of the best class. Mr. B. James is the Conductor.



St. Peter's Choir.

### *The Congregational Church Choir*

of Broken Hill was the first to introduce a surpliced choir in Australia among the Dissenting Body. The choir number about 30, are well trained, and show good musical talent. Mr. E. H. Cropley is the Conductor, and Mr. A. Godden the Organist.



Congregational Choir.



# A. F. Pincombe,

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Fire Brigade Board.  
 Darling River Railway League.  
 Barrier Range Horticultural Society.

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N.B.—All the Outdoor Photographs, Views, and Groups appearing in this book were specially taken by Brokenshire Bros.



## *The Young Men's Christian Association.*



Back row—F. W. Wickes Thornton Pearson W. R. Nairn Rev. W. Jarrett J. R. Brookman C. T. Hyde  
 Sitting—Rev. C. E. Schafer E. E. Garrett A. H. Gifford T. H. Pincombe, B.A., E. H. Green Rev. H. S. Bishop  
 Treasurer Gen. Sec. President Hon. Sec.  
 On ground—H. Lavers W. J. Drummond J. Copley A. E. L. Atkinson W. J. Clark

Keeping pace with the Y.M.C.A. Forward Movement in Australia, the Broken Hill Association is forging ahead. Though the youngest Association on the Continent, being only instituted so recently as May 7, 1906, it has a numerical strength of over 400 members, that mark having been reached in a most successful 30 days' membership campaign carried out in July, 1907.

It is recognised by the Board of Directors—a thoroughly representative body—that the field is a most inviting one for this special men's work—over 10,000 men being engaged in the mines alone, and a large proportion of all the men of the city are living in lodgings.

The ideal of the Y.M.C.A. is to be a "Home away from

Home," and the Directors are advancing their plans very hopefully.

The New Building Campaign, in which the National Secretary, Mr. Lyman L. Pierce, and other prominent leaders will co-operate in November, is expected to provide sufficient money to erect up-to-date and commodious Club Rooms in a central position.

These will be modelled on most useful lines, and equipped for the general improvement and benefit of members.

The membership is liberal, and any male of good moral character over 16 years of age is eligible.

Already the Association has many interests. Amongst them may be mentioned the Literary and Debating Society, Men's Sunday meeting, Weekly Social Tea, Draught Club, Rifle Club, Tennis Club, and Cricket Club.

The temporary rooms in Argent Street, opposite the Town Hall, are well supplied with magazines, newspapers, and games, and prove a daily attraction to many.

The Association is developing strongly, and will apparently fill a big gap in the institutions of the town.

## *The Barrier Sunday-School Union.*

only dates back to July 1, 1907. The constitution is wide enough to admit any Sunday School in the district, and is designed to be of practical assistance to all.

Of the 18 schools, the majority are identified with the Union, with every prospect of a complete membership at an early date.

A scheme embracing conferences, preparation classes for teachers, visitation of schools, a local Sunday Schools' newspaper, an annual demonstration, socials for workers, scholars' examinations, &c., has been proposed, and some of these are already in operation. Mr. E. E. Garrett is Treasurer.



Behind—A. R. L. Atkinson Official Visitor F. H. Kemp Secretary  
 Front—T. Pointon Vice-President Thornton Pearson President F. H. Griffiths, J.P. Vice-President

Telephone No. 5 Goods Department.  
Telephone No. 282 Customs Department.  
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## *The United Friendly Societies' Council*

This Society was formed for the purpose of looking after the interests of the various Friendly Societies of the Barrier. The objects of the Council are as follows:—

1. To organise and carry out any movement for the benefit of the several Societies represented.
2. To discuss any question brought forward by the Delegates of any Society represented on the Council, and to carry into effect any resolution carried by reference thereto.

The annual elections take place on the first Friday in November, when the Delegates elected from each Lodge take their seat on the Board,

and proceed to elect their officers for the ensuing term. Each Society is entitled to send two representatives, for which an annual fee of £1 1s. is charged, but some of the small Lodges are only represented by one Delegate. No Society that is not a duly registered "Benefit Society of Australasia" is allowed to participate in the benefits, for which the Council is formed. The present Officers of the Council are as follows:—President, Bro. J. B. Ferguson; Vice-President, Bro. J. March; Secretary, Bro. M. Murphy; Treasurer, Bro. J. Sherlock; Trustees: Sister Thornton and Bro. J. Ryan; Auditors: Bros. Wyld and Rayner.

## *Lodges on the Barrier with Secretaries.*

### **M.U.O.O.F.**

Loyal Silver City Lodge	W. Hogg
" Harry Cox	W. J. Ryan
" United Bros.	W. R. Davison
" Standard	H. K. Frost
" Plummer	R. C. Gamlen

### **G.U.O.O.F.**

Federal Lodge	W. A. Davidson
Silver Star	C. Watson
Pride of Barrier	J. W. Nichols
Hope of North	J. Jepsen
Star of South	J. J. Hall
Loyal Princess (Female)	Mrs. N. Holmes

### **I.O.O.F.**

Broken Hill Lodge	W. J. Bryant
Picton	L. E. Jennings
Burke	J. March
Imperial	W. F. Carr
Rebekah No. 4	Mrs. F. Little
" 7	Mrs. M. S. Thornton
" 22	Mrs. A. C. Wiseman

### **I.N.F.**

Irish National Foresters	J. Vance
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### **U.A.O.D.**

Success Lodge	F. Smith
Railway	A. E. Wyld
Silver Star	J. W. Probert
Triumph	G. M. Aitken
Alma	B. Williams

### **H.A.C.B.S.**

Sacred Heart Branch	J. St. Clair Larkey
All Saints	J. Eiffe
Saint Mary's (Female)	Mrs. M. J. Thornton
Central (Female)	Miss E. Kegan

### **A.N.A.**

Broken Hill Branch	A. G. Evans
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### **A.O.F.**

Court Stewart Lodge	A. MacGregor
" Victoria	A. H. Allen
" Marvel	H. Wright
" Pride of North	J. Adams

### **I.O.R.**

Star of Barrier Tent	C. Adams
Star of Alma	W. A. Trigg

### **P.A.F.S.**

Prince of Orange Lodge, No. 86	E. R. Silversmith
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### **I.O.G.T.**

Sons and Daughters of Temperance	F. T. Lewis
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## *Manchester Unity* *Independent Order of Oddfellows.*

### **Barrier District.**

#### **SILVER CITY LODGE.**

**Founded:** April 11, 1889.

**Secretary:** W. Hogg.

The Lodge meets every alternate Thursday at  
Tait's Lodge Room, Beryl Street.

#### **LOYAL PLUMMER LODGE.**

**Founded:** 1889.

**Secretary:** R. C. Gamble.

The Lodge meets every alternate Thursday, at  
Mechanics' Institute, Patten Street, South Broken Hill.

#### **STANDARD LODGE.**

**Founded:** 1900.

**Secretary:** H. K. Frost.

The Lodge meets every alternate Tuesday at the Trades' Hall.

#### **LOYAL UNITED BROS.**

**Founded:** 1901.

**Secretary:** W. R. Davison.

The Lodge meets every alternate Tuesday at Abbot's  
Hotel, Beryl Street.

#### **HARRY COX LODGE.**

**Founded:** 1903.

**Secretary:** W. Ryan.

The Lodge meets every alternate Monday at Mulga Hotel,  
Oxide Street.

#### **BARRIER DISTRICT, No. 12.**

Grand Master . . . . . W. R. Davison

Deputy Grand Master . . . . . W. Reville

District Secretary, W. Hogg. P.O. Box 50.

Total Membership—1,400.

Total Worth of Funds—£8,500.



**Barrier District Officers of the M.U., I.O.O.F.**

W. Reville, D.G.M.	W. R. Davison, G.M.	W. Hogg, Secretary
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# G. U. O. O. F.

District Officers of the G.U.O.O.F.



E. L. Dumaresq, Dis. Treasurer	F. Gummow, Dis. Trustee	J. Jepsen. Dis. Secretary
W. Blows, Dis. Master	A. W. Sommerville, Grand Master, N.S.W.	W. Mayger. Dep. Dis. Master

The Grand United Order of Odd-fellows is the second largest Friendly Society in New South Wales, both numerically and financially. The Society has its head-quarters in England, and is well represented in the English-speaking countries throughout the world.

In New South Wales the Society is divided into 10 districts, 191 branches, and has a membership of 17,816.

The Society has had a markedly good experience, both as regards the **death rate** and **sickness** experience, the former being 6.74 deaths per 1,000, whilst average of sickness amounted to 6.41 days per member for the year ending 1906. Notwithstanding this very favorable experience, no less than £13,425 11s. 7d. was distributed as sick pay during the past year.

The **income** of the Society (branches only) in New South Wales for 1906 was £54,193 15s. 10d., the surplus on the year's transactions being £17,498 4s. 11d. The **surplus** for past five years, 1902-6 (inclusive), was £53,822 2s. 11d. The grand total funds, New South Wales, December 31, 1906, amounted to £157,701 10s. 6d.

The Society is liberal in its rules, and provides a variety of scales, very attractive to intending members. Females and juveniles are also admitted, so that all classes are catered for.

**Scale A** provides sick pay, £1 1s. per week, funeral donation up to £30 for member and £15 for wife, and small donation for children in event of death.

**Scale B** provides sick pay up to 15s. per week, funeral donation of £15 for member, and £12 10s. for wife.

**Scale C** provides sick pay from 10s. to £2 2s. per week, and funeral donation from £10 up as high as £200, as desired. Under this scale members pay only for benefits selected.

In addition to above, the Society has an assurance department for members, wives, children, or relatives, whereby endowment policies may be effected at extremely low rates.

There is also established in connection with the Society an Hospital Fund, subscription 2s. per annum, entitling members to indoor treatment in any hospital at rate of 15s. per week. The benefits may be extended to member's wife for 2s. per year extra.

Further particulars can be obtained from John Jepsen, District Secretary, Broken Hill.



## United Ancient Order of Druids.

The history of Druidism on the Border is interesting, and dates back to 1887. It was in that year a number of South Australian Druids held a meeting, and decided to form a branch of their order on the then booming silver-lead fields. Application for a charter was made to the New South Wales Grand Lodge, but, not viewing the matter too kindly, they refused the request.

The Victorian Grand Lodge, the ruling body of Australian Druidism, was next approached with a similar request, and with the same result. The founders, however, being men full of enthusiasm, finally tried the South Australian Grand Lodge, who granted a charter, and the first Barrier branch, the Silver Star, was formed on May 3, 1888.

The city progressed so rapidly that, by 1892, the year of the big strike, there was an opening for another branch, and the Alma Lodge was opened in South Broken Hill on June 6 of that year. The strike settled, the existing Druids found that their numbers had made so material increase as to warrant the formation of an additional branch, and the Success Lodge was opened on August 3, 1893.

For three years these branches successfully coped with the requirements of the city, but



Present Officers of the U.A.O.D.

when, in 1896, on July 10 and 11 respectively, the Triumph and Railway branches were formed, they were given immediate support, and were soon firmly established Lodges of the Order.

Until 1901 things Druidic went along smoothly—then it was that the New South Wales Government proposed a new Friendly Societies' Act, which made it compulsory for all Friendly Societies in this State to be registered as such.

The Success Lodge immediately went into negotiations with the South Australian Grand Lodge, and, after several months' argument, seceded from that body's jurisdiction, and commenced to conduct its business under the wing of the New South Wales Grand Lodge on January 1, 1902.



P.A.s of Various Lodges of the U.A.O.D.

The other Lodges remained under South Australian control until 1907, when the New South Wales G.P. and G.T., accompanied by the South Australian G.S., journeyed to Broken Hill, and were successful in taking over the interests of these Lodges from the South Australian Grand Lodge to the mutual satisfaction of all parties concerned.

**G.U.O.O.F.****Loyal Princess Branch.****No. 6758.**

The branch was opened by Bo. Henry Herron, Grand Secretary of the Order in New South Wales, on July 16, 1906, with forty-nine members, which has now increased to one hundred and twenty. The following officers were elected:

	Sister
Noble Grand . . . . .	H. Gummow
Vice . . . . .	E. N. Conley
Financial Secretary . .	N. Holmes
Elective . . . . .	E. Stanley
Warden . . . . .	E. Tietz
Inside Guardian . . .	J. Lawrie
R.S. and N.G. . . . .	A. Mill
L.S. . . . .	M. Phillips
R.S. and V.G. . . . .	N. Howell
L.S. . . . .	E. Williams
Treasurer . . . . .	E. Howell



Officers of No. 6758 Loyal Princess Branch.

## *The Independent Order of Oddfellows.*

**Broken Hill Lodge—No. 65.**

This Order, also widely known as the American Order, was instituted on the Barrier by the then Grand Secretary, H. H. Greene, and the Grand Treasurer, George T. Clarke (now Grand Sire of Australasia, and Grand Secretary of the Grand Lodge of New South Wales), by the opening of the Broken Hill Lodge, No. 65, on October 3, 1888.

This Lodge progressing rapidly, other branches soon opened, the first being the Picton Lodge, No. 68, South Broken Hill, on May 24, 1890, quickly followed by the Burke Lodge, No. 69, situated in Railway Town, which was opened by the Grand Master, James Newton, on August 6, 1890. The youngest Lodge of this district is the Imperial, No. 70, originally opened at North Broken Hill by Past Grand Brother Thomas Will-



Back Row.—J. B. Job, P.G., No. 69, Trustee	F. Florence, No. 68	J. G. Wiseman, V.G., No. 65	J. Kirk, P.G., No. 68	T. G. Marks, P.G., No. 68
W. Wake, V.G., No. 68	C. Doubtfire, No. 68	E. J. Mitchell, P.G., V.G., No. 69		
Middle Row.—G. Klem, P.G., No. 68	C. Doubtfire, P.G., No. 68	F. Willemere, P.G., No. 69, Trustee	J. Bell, P.G., No. 68	R. T. Tregloan, P.G., No. 65
H. Roberts, No. 65	R. Cleland, No. 65	D. T. Dunne, No. 65	H. Cowl, P.G., No. 65, Recd. Sec.	
Sitting.—J. J. Perkins, P.G., No. 65 Treasurer	W. J. Bryant, P.G., No. 65 Secretary	A. Phillips, P.G., N.G., No. 65	A. Smith, P.G., No. 65	J. March, P.G., No. 69 Secretary
	E. R. Blanks, N.G., No. 69	R. C. Liddell, P.G., No. 69		



cocks and other members of the Broken Hill Lodge, No. 65. At a later period, however, the Lodge removed into the heart of the city, to the detriment of the other Lodges, and, after passing through financial trouble (in which it was assisted by Lodge No. 65), has since progressed favourably.

The Order locally has progressed satisfactorily, as, up to date, the numerical number stands approximately 630, while the funds total £3,700.



Back Row.—W. Shortell, F. Frost, G. T. Green, S. Tripp, C. Oram, S. F. Boyce.  
 Warden P.G. P.G. P.G. P.G. P.G.  
 Sitting.—W. Manoel, M. Murphy, W. F. Carr.  
 Vice Grand. Noble Grand. Secretary  
 In Front.—J. Williams, P.G., T. Trevorrow, P.G.

ence, and eventually obtained premier place in the Order in the New South Wales jurisdiction. That enthusiasm and pride of place the Lodge still maintains.

The membership numbers 300, and the funds are equal to £6 per head (per financial member), exclusive of the Funeral Fund. The President is Mr. Martin Murphy, and the Secretary Mr. W. F. Carr, the latter having held that office continually for 13 years.

#### Broken Hill Rebekah Lodge—No. 4.

The Lodge was opened at the Town Hall, Broken Hill, on May 27, 1902, 60 members being initiated the same evening. The membership increased so rapidly that other Rebekah Lodges of the Order were opened to meet the demand for fellowship. At the same time two other Orders also opened Lodges for female members. The Lodge has 260 members, and its funds are in a strong position. The Sisters holding the principal chairs are C. M. Boyce, P.G. and D.D.G.M.; E. A. Murray, P.G. and N.G.; F. Little, Secretary; E. Renton, Treasurer. The two latter officers have held office since 1902.

The total membership throughout the world at the end of last year was 1,700,000, and the total funds £9,000,000.

There are also three Rebekah Lodges on the Barrier, in connection with the Order, and one encampment.

The photo depicts prominent past and present officers during the history of the Order on the Barrier.

### *Independent Order of Oddfellows.*

#### Imperial Lodge—No. 70.

This Lodge was instituted at North Broken Hill on August 8, 1890. During the first four years of its existence the Lodge made no progress in either membership or funds.

In 1894 the Lodge changed its place of meeting to Argent Street, an enthusiasm sprang up among members, and the Lodge came rapidly into prominence.



Standing.—B. Bermingham, In. Guard C. M. Boyce, D.D.G.M. F. Bean, Past Grand L. Millstead, Chaplain  
 Sitting.—M. Pade, Vice Grand F. Little, Secretary E. A. Murray, Noble Grand E. Renton, Treasurer J. Meatheringham, Junior Past Grand



## I.O.O.F.

South Broken Hill Rebekah Lodge.  
No. 7.

The Lodge was opened in the Mechanics' Institute, South Broken Hill, on October 29, 1902. The foundation members were Brothers M. Colmer and L. E. Jennings, of No. 68, Picton Lodge; Sisters A. Colmer, E. J. Bottrell, J. Florence and M. Klem. Fifty-four members were initiated, and first officers elected and installed as follows:—**Noble Grand**, Bro. M. Colmer; **Vice Grand**, Sister E. J. Bottrell; **Secretary**, Bro. L. E. Jennings; **Treasurer**, Sister E. Robertson. After six months the Bros. retired from office, Sisters having filled their positions ever since. The Lodge has 100 members, a good credit at the bank, has paid medical attendance £172 18s. 2d., sick pay £89 18s. 6d., and funeral donation £10.



Front Row.—Miss A. Whitten, Mrs. M. S. Thornton, Miss J. Draper, Mrs. N. Lawson.  
Warden Secretary Vice Grand Jr. Past Grand  
Mrs. A. C. Wiseman, Miss A. Stancliffe.  
Treasurer and Past Grand Chaplain  
The two men, one on each side.—Mr. L. E. Jennings, Mr. M. Coleman.  
First Secretary First Noble Grand

This Lodge has presented Past Noble Grands Jewels to five officers, viz.: Bro. M. Colmer, Sister R. Barstow, Sister A. C. Wiseman (also Past Grand's collar), A. Colmer and M. Lawson. No. 7 Lodge holds the honour of having the highest ranked Rebekah on the Barrier among its members, in the person of Sister A. C. Wiseman, who is Past Secretary, twice Past Noble Grand (both time unopposed), and the first **Lady** District Deputy Grand Master on the Barrier.

Broken Hill Rebekah Lodge.  
No. 22.

The Lodge was duly opened by Bro. J. March, of Burke Lodge, No. 69, on July 24, 1905, and was started mainly owing to the energetic endeavour of some of the officers of No. 7 Lodge.

The first officers were **Noble Grand** Bro. A. Hindes (who holds the office of Past Grand Patriarch, the highest position to be obtained in the Order in N.S.W.); **Secretary**, Sister A. C. Wiseman (also Past Secretary of No. 7 Lodge and Past Grand). These two officers were appointed by Bro. March, Deputy District Grand Master, and Sister A. C. Wiseman has held the position since, being re-elected by the Lodge each successive term. The other officers were: **Vice Grand**, Sister S. A. Adamson; **Treasurer**, Sister E. J. Manley. The Lodge started with only 16 members, but has steadily increased to 88. Lodge meetings are held every alternate Monday, at the Burke Ward Institute.



Back Row. Miss M. Wiseman, Miss Newman, Mr. A. Hindes, Miss Purcell,  
Supporter Supporter Past Grand Patriarch Conductor  
Miss R. Oliver, Miss E. Wiseman.  
Supporter Supporter  
Sitting.—Miss D. Moore, Mrs. A. C. Wiseman, Mrs. M. Ruby, Mrs. M. S. Thornton,  
Chaplain Secretary Vice Grand Jr. Past Grand.  
Mrs. S. Adamson, Miss V. Krause.  
Treasurer and Past Grand Warden  
Sitting on Ground.—Miss Edwards, Supporter Miss Cowie. Inside Guardian



R. J. Wicks, Vice-President.

## Australian Natives' Association.

The Broken Hill Branch of the A.N.A. was formed in October, 1900, and now ranks amongst the foremost Benefit Societies on the Barrier. To June, 1902, the progress of the branch was slow, partly owing to misconception on the part of many as to the aims and objects of the Association, but mainly owing to the severe depression of 1901-2, caused by the fall in metal values. Since that date, however, the position has much improved, as the following figures will show:—June 30, 1902, financial membership 130; same period 1907, 455.

For the half-year ending June, 1902, benefit disbursements were as follows:—Sick Pay, £27 13s. 4d.; Medical, £41 12s.; Consolidated Sick and Funeral Funds, Sydney, £8 2s. 5d.

Compared with same period present year as follows:—Sick Pay, £205; Medical, £209 8s. 6d.; Consolidated Sick and Funeral Funds, Sydney, £157 12s.

Total disbursements for five years just ended:—Sick Pay, £1,304 8s. 6d.; Medical, £1,494 11s. 6d.; Consolidated Sick and Funeral Funds, Sydney, £1,361 11s.; Funeral Allowances, £130. Total direct benefits to members for five years, £2,929.

The objects of the A.N.A. embrace educational, social and national advancement, as its name implies. With these objects in view, competitions have been held in the years 1903-4-5, with satisfactory results from the educational standpoint, in vocal and instrumental music, elocution, art, literatures, &c. Owing partly to financial failure in the latter year, an effort to continue in 1906 was abandoned. Early this year (1907) it was decided to revive the contests, and up to the present prospects are favourable. It should be borne in mind that the movement is for the public good, and that the Association is only carrying out one of the objects for which it exists. All monies received on this account are used exclusively for competition purposes.



Back row—  
H. M. Harley, Auditor      J. B. Ferguson, Auditor & Past Pres.      J. W. Burrows, Past Pres.      E. Inwood,      S. J. Coade.  
Sitting—  
R. Treleven, Past Pres.      A. G. Evans, Sec.      M. M. Ryan, President      J. H. Riley, Past Pres.      A. H. Bills, Treasurer  
On ground—  
C. H. Morrow, Assistant Secty.      H. Valentine, Sec. Competitions Committee







## Broken Hill Starr Bowkett Societies.



Back Row.—D. J. Newbury, Director    J. F. Richards, Director    A. F. Pincombe, Valuator    G. C. Bowen, J.P., Director  
Sitting.—S. Townsend, Treasurer    T. Hall, J.P., Secretary    T. H. Griffiths, Treasurer    C. S. Barron, Director

The Broken Hill Society, No. 15, inaugurated the Starr Bowkett principle on the Barrier, and was floated with a full list of 499 members in the month of May, 1897. The following gentlemen were the first members of the Board of Management: F. H. Griffiths, J.P., H. Plant, W. H. Leak, H. R. Jobling, and H. J. Wiseman, the Secretary being T. Hall, J.P.; Valuator, A. F. Pincombe; and Solicitor, A. J. Hall. The first subscription night was June 7, 1897. Subscription, 1s. per week each share, and the Society limited to 499 shareholders, who could take from one to fifteen shares each. The amount of subscriptions received during the ten years ending May, 1907, totals £14,324 9s. 6d., and the sum lent to shareholders free of interest to the same date is £32,525. The money is allotted by ballot, mem-

bers receiving £100 loan for each share they hold, free of interest for 5 years, repaying £1 13s. 4d. monthly for each £100 received, and as this money is returned it is lent to other shareholders, the amount lent during the tenth year being £1,720. The magnificent results obtained by this Society constitutes a record for Starr Bowkett Societies worked solely on this principle throughout Australasia. During the above-named period the personnel of the Board has changed, by reason of the removal from the district of Messrs. Plant, Jobling and Leak, and the recent decease of Mr. Wiseman. The present members filling the vacancies thus caused are Messrs. S. Townsend, C. S. Barron, J. F. Richards and D. J. Newbury. Owing to the great success of this Society, and in response to numerous requests, the Board launched what is known as the Willyama Starr Bowkett Society, No. 1, in September of 1899, on the same principle as the former Society. The share list filled so rapidly that the officers decided to start another, named the Barrier Starr Bowkett Society, No. 2, introducing a novel feature—that of selling one-half of the appropriation made by auction to shareholders only, the purchase money being paid at the rate of 6d. per week for each £5 paid for the loan. The revenue from this source more than pays the working expenses of the Society. This system gives shareholders in need of a loan the opportunity of getting one almost at any time it is required. Mr. G. C. Bowen, J.P., is a Director on this Society. The increasing popularity of the Society determined the Directors to launch yet another, called the Central, a few months ago, the shares of which were over-applied for within seven days. The disappointed applicants for shares were numerous, and another Society, named the Sturt, was floated in four days. The above-named Societies are all under the management of the gentlemen named, and have been the means of stimulating the habit of thrift in many hundreds of the residents of the Barrier, who, prior to the inception of the Societies, were paying rents with little chance of procuring their own homes, but are now living in their own houses, built on freehold land with money procured from the Societies, repaid at about 8s. per week.



***Hibernian Australasian Catholic Benefit Society.***

H.A.C.B.S. Sacred Heart Branch, No. 208.

NEW SOUTH WALES.



Sitting on chairs only.—J. St. Clair Larkey, G. Fitzgerald, W. Redmond, J. O'Loughlin,  
Secretary Past Pres. Min. Sec. Treasurer

F. Mundow, T. Devitt, W. Rowe, T. Walmsley, R. Larkey, J. J. Prentice.  
Past Pres. President Vice-Pres. Past Pres. Warden Guardian

only recently celebrated its jubilee in Australia, but a similar Society has been known in Ireland, as the Ancient Order of Hibernians, who proudly boast of their descent from that Irish Confederation, which, on that memorable morning in 1642, met at Kilkenny to proclaim the right of the Irish to civil and religious liberty; while that Confederation can trace their origin back over 600 years, to those dark days of Irish history when a price was set on every priest's head, and the Hibernian Society proved their devotion to Faith and Fatherland by acting as watchers for the descent of the soldiers on whatever place in which a priest should be saying Mass.

A feature of the Society is the forming of female branches, no less than 8 new branches having been opened last year in this State. The Society in N.S. Wales has 140 branches and 7,000 members, with funds totalling £40,000.

H.A.C.B.S. All Saints' Branch, No. 421.

In Broken Hill there are 5 branches in all under the Sydney District No. 4; and it might be of interest to state that Mr. Wm. Redmond, M.P. for East Clare, while on a visit to Australia about two years ago, became a full benefit member of the Society, thus helping to cement the ties that bind the Irish to the dear old land, and shows that the members carry out their motto—

**"Faithful to the Old Land,  
True unto the New."**

During 19 years' existence this branch has paid in sick pay £3,400; in funeral claims, £450; while for medical attendance £3,300 has been expended; the total funds of the branch being £1,070 in June, 1907.

**All Saints' Branch, No. 421,**

founded February 15, 1904, has made good progress since inception, and has 100 members on the roll.



Front Row Sitting.—J. St. Clair Larkey, J. A. Eiffe, A. M. Reidy, F. Moran,  
Sec. Sacred Heart Sec. All Saints' President Past Pres.  
N. T. Healy, W. Driscoll, J. T. Travers, P. Lynch.  
Vice-Pres. Treasurer Guardian Warden

**The Sacred Heart Branch, No. 208,** of the above Society was opened in Broken Hill on October 4, 1888, being amongst the first Societies to begin operations in what was then a wilderness, but which has since become the third largest city in the State, and one of the wonders of the world.

Love of one's native land, and of the associations of that land, being the Irishman's natural inheritance, as also that of Australian-born Irish, it is no wonder that the formation of a Society which binds Irishmen and their descendants by those two great ties—religion and national sentiment—should be as early accomplished.

The Society is yet in its infancy as a Benefit Society, having

## *Hibernian Australasian Catholic Benefit Society.*

### NEW SOUTH WALES.

#### The Sacred Heart Women's Branch, No. 6,

was opened on December 17, 1902, with the very valuable assistance of Mr. J. St. Clair Larkey, Secretary of the men's branch of the same Order. On December 31, 1902, twenty-nine members were initiated, and since that time there has been a considerable increase, making it one of the strongest women's Lodges in New South Wales.

The success is mainly due to the Rev. Father Connelly, their Chaplain, whose untiring energy has proved of such great assistance in helping to work up and carry out the details of the Society.

Front Row (sitting down) only.—G. Moran, E. Larkey, L. Larkey, A. Keating, E. Kegan,  
Past Pres. President Secretary  
R. Gurry, M. Kursten, T. Callaghan.  
Treasurer Guardian Warden

Since its organisation there have only been two deaths, and the record of sickness is low, consequently a good sum of money has been placed to the Society's credit with the Executive in Sydney.

The meetings are held in the School Hall, kindly placed at their disposal by the Bishop, where many happy evenings are spent. It is intended to hold a combined picnic of the H.A.C.B. Societies at Silverton on November 13 (kept as the King's Birthday), for which both the ladies' branches are strenuously working, and which will be made an annual affair.

### NEW SOUTH WALES.

#### The St. Mary's Women's Branch, No. 9,

was opened in All Saints' School-room, South Broken Hill, on Thursday, January 28, 1904, by the Rev. Father Tobin, assisted by the officers of the Sacred Heart Women's Branch, No. 6, P.P. Bro. W. J. Savage, and Secretary Bro. J. St. Clair Larkey, of No. 208 branch.

Father Tobin inaugurated the ceremony by reading his appointment from the Bishop of the diocese (Dr. Dunne, Bishop of Wilcannia), as Chaplain of the branch, and his authority from the Executive Board to open the branch. Brother St. Clair Larkey was then invited to act as installing officer.

Eighteen full benefit members (one honorary, one clearance)



Sitting.—Mrs. Heggarty, Miss A. O'Leary, Mrs. M. S. Thornton, Miss M. Reidy,  
Past Pres. Past Pres. Secretary President  
Mrs. L. Healy Miss J. O'Leary, Miss K. Healy  
Vice Pres. Warden Guardian  
Standing immediately behind.—Miss L. Lamb, Miss N. Healy, Mrs. C. Britten,  
Past Pres. Past Pres. Trustee  
Miss A. Donohue, Miss N. Jones.  
Sitting on ground.—Miss M. Lettman, Past Vice-Pres. Miss A. Harford, Past Warden.



were accepted and initiated. The first officers of the branch were then elected and duly installed into their respective chairs as follows:—**President**, Sister M. Hegarty; **Vice-President**, Sister B. Kain; **Secretary**, Sister A. O'Leary; **Treasurer**, Sister E. Hebbard; **Warden**, Sister N. Healy; **Guardian**, Sister M. Whitlum; **Trustees**: B. Kain, M. S. Thornton, C. Britten.

The present number of members is about 46. All the funds are slowly increasing, but the Board has had a great strain upon the Sick Fund, having paid away no less than £55 13s. 4d., medical attendance and medicine £57 3s.

Though the youngest ladies' branch of the Order, No. 9, recognising the responsible duties of the President, were the first to present their P.P.'s with certificates, a beautiful emblem of the Order, the Faith, and the Commonwealth in which they dwell.

Six P.P.'s have already gained the honored position and the emblem, while the first P.P. was also presented with a P.P.'s collar. Their names are as follows:—M. Hegarty (certificate and collar), B. Kain, N. Healy, H. Holland (nee Riley), L. Lamb, and A. O'Leary.

## Broken Hill Catholic Young Men's Society.

The idea of a social and intellectual Society for the Catholic young men of Broken Hill had long been in the minds of many of the inhabitants, and in the beginning of May, 1907, this idea assumed concrete form. At that time the Bishop of Wilcannia (Dr. Dunne), assisted by Father Maguinness and several Catholic laymen, called a meeting to inaugurate a Society, having for its object the amusement and instruction of the Catholic young men of the large district of Broken Hill.

This meeting was in every way successful, and the Broken Hill Catholic Young Men's Society was established, with about fifty members. The Rev. Father Connolly is Spiritual Director, and takes a very keen interest in the welfare of the Society.

The objects of the Society are to foster a spirit of union and co-operation among its members, and to provide for their intellectual, spiritual and social advancement.

From the outset, the Society has been successful and popular, and its membership roll now amounts to about one hundred and fifty, which number is increasing rapidly. Meetings are held twice weekly in the old church in Mica St., one evening being devoted to such subjects as debating and reading competitions, and items of a

The Committee.



Back Row.—J. Prentice, C. Dowdy, K. Hynes, T. Roche, H. M. Reilly.  
Sitting.—A. R. Lhuède, R. H. Taylor, J. Sherlock, T. O'Loughlin, T. Barry.  
Hon. Sec. President Treasurer  
On ground.—J. Hall, C. Noonan.



like character, interspersed with music, &c., &c., to which the fair sex are invited, and a really high-class programme is submitted. The other meeting night is given over to sports and games, which are, needless to say, well patronised.

The Society's magazine, which is issued monthly in a type-written form, is one of its best features; the subjects are original, and contributed exclusively by the members, and this institution has proved such a success that it has been unanimously decided to publish the magazine in book form in the near future. Another successful venture was the holding of dance socials at short intervals.

Altogether this Society, during its short existence, has proved itself a complete success, and supplies a great want in the parish of Broken Hill, where amusements are few and temptations many. Although so much has already been done, the executive consider that their work has only just begun, and fully realise that, to keep a body of young men together and out of mischief in a place like Broken Hill strenuous work is necessary. With this in view, numerous important projects are at present occupying their thoughts, and it may be safely prophesied that, within a very short period, this institution will be one of the best and most useful of its kind in this great inland city.



A Few Members of the Catholic Young Men's Society.

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